

WINTER 1989-90

VOLUME 13, No. 4

THE JOURNAL

CALIFORNIA HISTORICAL RADIO SOCIETY

DECEMBER, 1952

**RADIO &
TELEVISION**
NEWS

COVER PHOTO: A portable radio is a happy thought for any gift-giving occasion. The recipient of this RCA Victor Model 2B400 "personal radio" beams her obvious pleasure. Gown by "Perfect Negligee," New York City. (Ektachrome by Photo Associates)



IN THIS ISSUE:
TECH TIPS
MEMBER PHOTOS
AN AMERICAN IN PARIS ...
FEATURED SET: Kolster K-45
CLASSIFIED ADS and MORE!



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The California Historical Radio Society is a non-profit corporation chartered in the State of California, and was formed to promote the restoration and preservation of early radio and broadcasting. Our goal is to provide the opportunity to exchange ideas and information on the history of radio, particularly in the West, with emphasis in the areas such as: collecting, literature, programs, and restoration of early equipment. The *Journal* of the CHRS is published quarterly, alternately in printed and audio tape format, and is furnished free of charge to members. Yearly membership dues are \$15.00.

Production notes: This issue of the *Journal* was composed on a Macintosh SE computer using Microsoft Word, version 4.0. Camera-ready copy was produced on an Apple LaserWriter II NT printer. The Times and Palatino fonts were used. Comments and suggestions, articles, stories, classified ads, and other material for the *Journal* are welcomed and must be submitted to the Editor at least 60 days prior to the cover date.

Fine Print: The enclosed membership directory addendum covers members who have joined or renewed since the directory was printed in late January 1989. **NOTICE:** The Directory is published with the intent for personal use only, enabling members to contact others with similar interests. Commercial use of any kind, whatsoever, is unethical and therefore is prohibited.

PRESIDENT'S MESSAGE

By: Paul Joseph Bourbin

It has been a busy year for CHRS. We have had a six meets and, our first society picnic will be rescheduled, do to the recent confusion caused by the 17 October earthquake. CHRS has benefited from the sale of material donated by Charlie Ruling and Larry Clark. A branch of CHRS has been formed in the North Valley and we have enlarged the Journal and published some very historical tapes. All in all a very successful year.

The next and last swap-meet for 1989 will be at Foothill College, Los Altos Hills, CA on Saturday, 11 November starting at 7:00 AM. Bring material for the auction. After the auction, a membership meeting will be held. Among the items to be discussed will be the dates of the swap-meets for 1990 and the locations for the regional meets. As these items always bring forth lively discussion, plan to attend and vote for the dates of your choice.

Material is always needed for the Journal and the audio tapes. Our publications are of such high quality because members supply the editors with good material. If you have any good ideas for an article or interview please send them to our Journal editors, Bart Lee and Adam Schoolsky and our tape editors, Chris Buttery and Bill Helander. Incidentally, many thanks to our editors for a splendid job well done.

We have had, unfortunately, a number of recent misunderstandings concerning the quality and originality of a piece of equipment. When selling, buying or trading, make sure that both parties understand exactly what each should expect. If there is a question after the transaction has occurred, contact the other party and attempt to resolve the problem. Once a solution is found, implement it soon. Electricity is provided at all Foothill meets and many of the regional meets; make use of it to test the radios.

We do not want radio collectors and CHRS to acquire the reputation of used car dealers or some of the sleazy characters that advertise on UHF television. Caveat Emptor is not a license to lie, cheat, or steal, but buyers should also make sure that they have all of the information necessary to avoid future disappointment; to do anything else is folly.

As radios rapidly increase in value and our numbers increase, some people become corrupted by the desire for profit at the cost of honesty. They shall receive invitations to that great eternal swap-meet at the Citadel of Dis (see Dante's Inferno, Ninth Circle). If many more complaints are received, strong action will be taken.

Included with this mailing is a membership renewal form. Please remit your dues (\$15) to the membership secretary, Adam Schoolsky, before 1 January 1990. It is very important that you send the renewal form with your check. You will not be in the initial Membership Directory if you remit after that. I know when I have a hot lead, that I go to my Membership Directory first to find people to contact. While you are at it, why not bring a friend or two into the fold?

I guess that's all for now. Hope all of you have most pleasant holidays and a year filled with good health, happiness and peace.

73.

NEW CHRS CHAPTER

CHRS member Norm Braithwaite is now forming a North Valley Chapter of CHRS. Membership is open to all CHRS members residing in Northern California and Southern Oregon. This group will have its own officers, activities, meets, meetings and newsletter. They will probably sponsor one of our regional meets in addition to their own meets. If you are interested in participating, contact Norm Braithwaite, P.O. Box 2443, Redding, CA 96099 or call him at (916) 246-4209. We wish Norm great success in the formation of CHRS' first Regional Chapter. Anyone else interested in forming a Regional Chapter in another area? Please contact Paul Bourbin.

Mahlon Loomis - First Wireless Telegrapher

By: Edward A. Sharpe, Southwest Museum of Electricity and Communications



Mahlon Loomis - The First Wireless Telegrapher

Born July 26, 1826 - Oppenheim, New York

Died, October 13, 1886 - Terra Alta, West Virginia

As it is with any event in history, invention of a process is seldom the responsibility of only one singular person. Radio, as we know it, has been attributed to Guglielmo Marconi, however his success was built upon the works of Hertz, Lodge and Branley, and others.

Let us now take a trip back into history, Let's even go back before Marconi was a twinkle in his parent's eye!

The Early Days

Mahlon Loomis was born July 21, 1826 in Oppenheim New York, into the family of Professor Nathan Loomis and Waitie Loomis. He was the forth of nine children.

Not a lot of details are available about Mahlon Loomis' early life. This is unfortunate because it is often interesting to see how a young inventive mind grows. We do, however,

know that he was surrounded by educated minds, as his father was a founder of the AMERICAN EPHEMERIS and NATIONAL ALMANAC. In addition to this, his older brother George, was an inventor and holder of several patents himself.

In 1836, Mahlon's family moved to Springvale, Virginia. In September of 1848 Mahlon went to Cleveland, Ohio to partake in the study of dentistry. In 1850, he returned to Springvale to continue his dental work.

For several years Mahlon spent time as a traveling dentist. During this time he went to Earlville, New York, Cambridgeport Massachusetts and Philadelphia. During this practice in Massachusetts he received a patent for a mineral plate (Kaolin) process for the making of artificial teeth.

In November of 1856, Loomis and his bride of only a few months, Achsah Ashley, settled in Washington D.C. to set up a dentistry practice.

The Start Of The Electrical Days

About 1860 Mahlon Loomis became interested in electricity, and his first application of this was an experiment in the forced increase of growth in plants. This was achieved by buried metal plates connected to an electrical current furnished by batteries.

In this same time period Mahlon became interested in using the electrical charges obtainable from the upper atmosphere by means of kites carrying metal wires. At first he planned to use this natural source of electricity to replace batteries on a telegraph circuit. It is noted in many references that this was something that was actually achieved on a telegraph line that was 400 miles long.

Later on, from experiments in this area, Mahlon discovered that a kite sent aloft would affect the flow of current in another kite that was some distance away from the first kite.

This set him on a path of developing it as a system of wireless telegraphy for practical long distance communications.

It Actually Works!

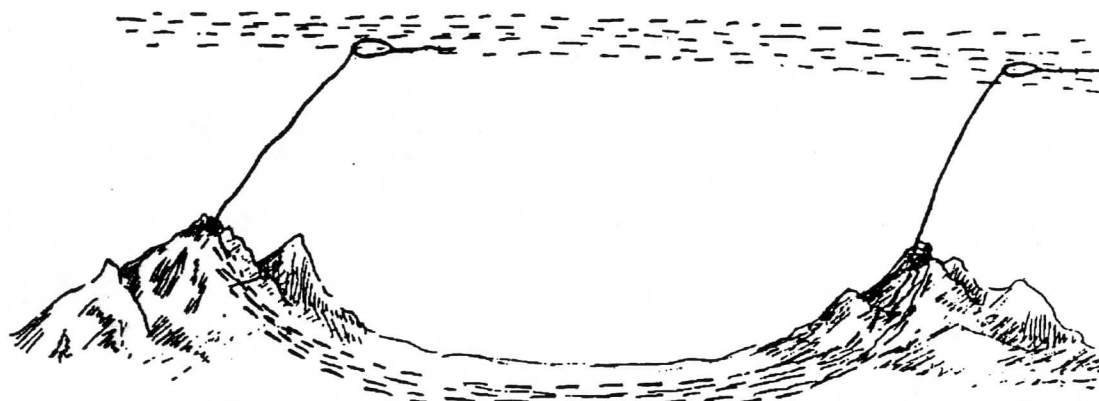
The year is 1868, and Mahlon Loomis demonstrates to a group of Congressmen and eminent scientists a wireless "communication" system between two sites 14 to 18 miles apart. There seems to be some discrepancy as to the distance in the various records that exist, however in the picture that was drawn by Mahlon Loomis, 14 miles is mentioned. This and many other pictures and notes are on file in the Library of Congress.

From one mountain peak he sent up a kite, the bottom of which was covered with thin copper gauze, and the kite string was copper wire. He connected this apparatus up to a galvanometer that had the other end of the circuit connected to ground. Immediately the galvanometer showed the passage of current!

He then set up an identical outfit on a mountain peak 18 miles away, to send. He would touch this second kite's wire to ground and by this action reduced the voltage of the charged stratum and lowered the deflection in the galvanometer attached to the other kite at first location we discussed.

There were problems with the communications system sometimes. It seemed that if one of the kites was at the wrong height, the system would not work. This led Loomis to believe that there were different areas in the atmosphere, and depending which area you were in, would control if the communication would work or not.

There were even days when the system just would not work at all. In thinking about that, I suppose it could be due to the electrostatic charge in the atmosphere that existed at that time during the experiment.



Cohocton Mountain Va. 14 miles apart Beaver Den Mt Va
Spur of Blue Ridge
Sent Signals by "Aerial Telegraph" between these two stations by elevating a kite on each mountain, the string of which was a small copper wire, attached to galvanometer each ground end lying in water. The signals perfect during the cloudy part of the day. Elevation about fifteen hundred feet.

Drawing done by Mahlon Loomis, showing 14 miles between mountains. From Library of Congress Archives.

Mahlon Seeks the Government's Help

Senator Charles Sumner, encouraged by a previous government grant to Samuel F.B. Morse, introduced a bill into the Senate on January 13, 1869. The "Loomis Aerial Telegraph Bill" asked for an act of incorporation for the Loomis Aerial Telegraph Company, and for the appropriation of \$50,000 to help perfect Loomis's discovery and make it practical.

Loomis had purposed a system where wireless telegraph messages could be sent across the Atlantic at 1/16 the cost of what it was using a Trans-Atlantic cable.

In an address to Congress, Loomis explained worked by:

"Causing electrical vibrations or waves to pass around the world, as upon the surface of some quiet lake one wave circlet follows another from the point of the disturbance to the remotest shores, so that from any other mountain top upon the globe another conductor, which shall pierce this plane and receive the impressed vibration, may be connected to an indicator which will mark the length and duration of the vibration; and indicate by any agreed system of notation, convertible into human language, the message of the operator at the point of the first disturbance."

The bill, although gaining the support of a few Congressmen, was thought to be a fraud by many others. It was shuttled from committee to committee with much delay.

On May 20 thru 21, 1872 a lengthy discussion took place in the House. The issue of appropriations had been removed from the bill, and issue of incorporation was all that remained of the Loomis bill.

The newspapers became extremely active on the Loomis issue, unfortunately the majority of them were not favorable to the

concept of wireless communication. Their reports ranged from polite skepticism to outright ridicule and allegations of the Loomis method being a fraud!

A copy of the Loomis Bill was also submitted to the committee for patents. On July 30, 1872 Patent number 129,971 was issued to Mahlon Loomis.

On January 6, 1873, the Loomis Bill was brought to a vote in the Senate and passed by a vote of 29 to 12, with 33 Senators absent. The record shows that neither of Virginia's Senators voted for the bill, despite the fact that Loomis was a resident there. Five days later the bill was signed into law by President Grant, thus incorporating the Loomis Aerial Telegraph Company. What had been achieved by this? Actually, not very much! Although Loomis now had a legal corporation, it was not allowed to operate outside Washington D.C. without the prior consent of the state the corporation wished to operate within.

The Twilight Years

During the later years of his life, Mahlon worked as a dentist only to the extent to get some more capital to use to purchase goods for his electrical and communications experiments.

In the late 1870's a distance was obtained of 20 miles. In this experiment he erected steel masts atop wooden towers (these replaced the kites of the earlier experiments) and reportably maintained fairly reliable communications for periods of months at a time.

There was even some hints in his notes about experimenting with a "Wireless Telephone". There do not seem to be any surviving details of these experiments however, so it is really hard to say if he met with any success in this area or not.

UNITED STATES PATENT OFFICE.

MAHLON LOOMIS, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN TELEGRAPHING.

Specification forming part of Letters Patent No. 129,971, dated July 30, 1872.

To all whom it may concern:

Be it known that I, MAHLON LOOMIS, dentist, of Washington, District of Columbia, have invented or discovered a new and Improved Mode of Telegraphing and of Generating Light, Heat, and Motive Power; and I do hereby declare that the following is a full description thereof.

The nature of my invention or discovery consists, in general terms, of utilizing natural electricity and establishing an electrical current or circuit for telegraphic and other purposes without the aid of wires, artificial batteries, or cables to form such electrical circuit, and yet communicate from one continent of the globe to another.

To enable others skilled in electrical science to make use of my discovery, I will proceed to describe the arrangements and mode of operation.

As in dispensing with the double wire, (which was first used in telegraphing,) and making use of but one, substituting the earth instead of a wire to form one-half the circuit, so I now dispense with both wires, using the earth as one-half the circuit and the continuous electrical element far above the earth's surface for the other part of the circuit. I also dispense with all artificial batteries, but use the free electricity of the atmosphere, co-operating with that of the earth, to supply the electrical dynamic force or current for telegraphing and for other useful purposes, such as light, heat, and motive power.

As atmospheric electricity is found more and more abundant when moisture, clouds, heated currents of air, and other dissipating influences are left below and a greater altitude attained, my plan is to seek as high an elevation as practicable on the tops of high mountains, and thus penetrate or establish electrical connection

with the atmospheric stratum or ocean overlying local disturbances. Upon these mountain-tops I erect suitable towers and apparatus to attract the electricity; or, in other words, to disturb the electrical equilibrium, and thus obtain a current of electricity, or shocks or pulsations, which traverse or disturb the positive electrical body of the atmosphere above and between two given points by communicating it to the negative electrical body in the earth below, to form the electrical circuit.

I deem it expedient to use an insulated wire or conductor as forming a part of the local apparatus and for conducting the electricity down to the foot of the mountain, or as far away as may be convenient for a telegraph-office, or to utilize it for other purposes.

I do not claim any new key-board nor any new alphabet or signals; I do not claim any new register or recording instrument; but

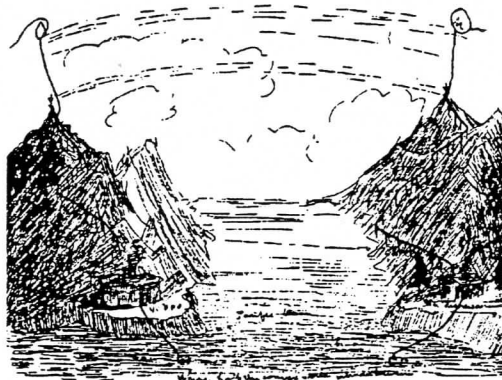
What I claim as my invention or discovery, and desire to secure by Letters Patent, is—

The utilization of natural electricity from elevated points by connecting the opposite polarity of the celestial and terrestrial bodies of electricity at different points by suitable conductors, and, for telegraphic purposes, relying upon the disturbance produced in the two electro-opposite bodies (of the earth and atmosphere) by an interruption of the continuity of one of the conductors from the electrical body being indicated upon its opposite or corresponding terminus, and thus producing a circuit or communication between the two without an artificial battery or the further use of wires or cables to connect the co-operating stations.

MAHLON LOOMIS.

Witnesses:

BOYD ELIOT,
C. C. WILSON.



The Trans-Pacific Plan Loomis Wanted to Try Between San Francisco and Japan.

There are also drawings of buzzers connected to the Loomis system. Was this the start of an idea never finished?

Twilight Fades to Dark

Mahlon Loomis was heard to say many time the following statement:

"I know that I am regarded as a crank, perhaps a fool by some, and as to the latter, possibly I am, for I could have discarded this thing entirely and turned my attention to making money."

"I have not only discovered a new world, but the means to invade it. My compensation is poverty, contempt, neglect, forgetfulness. In the distant future, when the possibilities of this discovery are more fully developed, public attention will be directed to it's originator, and the congressional records will furnish the indisputable proof that the credit belongs to me."

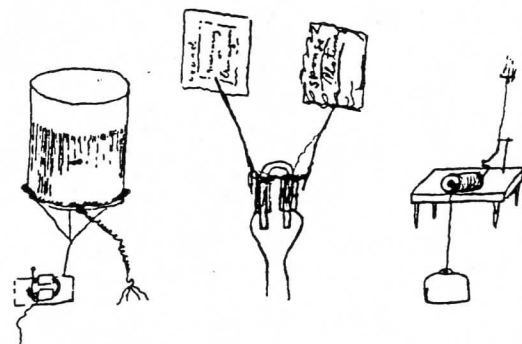
On October 13, 1886, after a weeks long illness, Mahlon Loomis died at his brother's country home in Terra Alta, West Virginia ; he was 60 years old. During the illness, his brother George reported that Mahlon was in hopes that the world would realize and use his invention. George Loomis also told others his brother's thoughts as Mahlon's life neared it's end.....

" I know that I am by some, even many, regarded as a crank - by some perhaps a fool.... But I know that I am right, and if the present generation lives long enough their opinions will be changed - and their wonder will be that they did not perceive it before. I shall never see it perfected - but it will be, and others will have the honor of the discovery "

The Aftermath

What is Loomis's place in communications history? At the very least there are several areas he should receive credit for.

1. First to use a complete antenna and ground system
2. First experimental transmission of wireless telegraph signals.
3. The first use of kites to carry an antenna aloft.
4. The first use of balloons to raise an antenna wire.
5. First vertical antenna (steel rod mounted on top of a wood tower).
6. Formulation of the idea of 'waves' traveling out from his antenna.
7. The first Patent for wireless telegraphy.



In later years Loomis made these sketches of buzzers connected to his antenna system, this was of course before Marconi made his discoveries.

His actions did not catch the attention of the world as those experiments and successes that Marconi had. It almost seems that he was just a generation ahead of his time. The wireless system that was to happen had to wait another generation until there would be a bit more knowledge to draw upon to bring it to its fulfillment and usefulness.

Who is to know though, what the publicity that surrounded his experiments may have done to inspire other people. It is often a chain reaction, once an idea is brought to light, and it inspires other people to think along the same lines or to start experimenting with their own variation of an idea. We will never know if there was any of this inspiration 'transmitted' to other thinkers or not. I would like to think that even though he did not personally succeed, that somehow he had an influence on what was to later happen.

List of resources:

Patent # 129,971 dated July 30 1872 issued to Mahlon Loomis

"How Radio Grew up" by Robert H. Marriot
Radio broadcast Dec. 1925

Radio Theory and Operating by Mary Texanna Loomis (1925)

"Wireless Pioneer in Virginia" by Theodore M Hannah Virginia
Cavalcade volume 12 #3 winter 1962-63

"Inventor of Wireless Telegraphy" New England Magazine by G. Loomis Volume 24, 1901, page 145+

"Loomis Bills" from Association of Lynchburg General electric Engineers COMMUNICATOR December 1965

"Man Before Marconi" QST, by j.b. Lebo QST Aug 1948 pages 42-44

Dictionary of American Biography Page 399-400

"Sparks Journal" Vol. 2, No. 1 - 1978. Published by The Society of Wireless Pioneers.



BRANLY (Edouard)
(1844-1940)
Physicien
né à Amiens



ALL TOO TRUE DEPARTMENT: RADIO COLLECTING IN REDDING

By: Norm Braithwaite, P. O. Box 2443, Redding, CA 96099, (915) 246-4209.

Redding is a city of approximately 60,000 inhabitants. During the 1930's, the population was less than 10,000. The primary industry was logging. The area was rather depressed during the depression. Consequently, there are no Scott radios and few Zenith or other fine radios around except in my collection. Presently, Redding has a larger than fair share of lower income households. This is due to a relatively low cost of living. As a consequence, there are many people who will say anything to sell an item at a yard sale or through a newspaper ad. Ironically, many of these people price the items, for which they do not know the value (such as radios), high or at essentially restored Bay Area prices (thanks to our mobile society). But the most difficult task which I face is getting a straight description over the telephone. Some statements and their translations follow.

About five years ago, I read a ad in the local paper, "World War One radio, \$700.00." Opportunity had finally knocked! I called and the conversation went something like this: Me: I'm calling about the World War One radio you are selling. Could you describe it for me? Elderly Lady: Sure. It's a Zenith Transoceanic.

In addition to passing on this one, I've passed up a 1924 Philco, advertised in the paper, since Philco didn't make radios until four years later.

A recent ad offered a "1940's Firestone Console," working for "best offer." Although I wasn't interested, I referred collector friends to the ad. The following week, another ad with the same phone number offered "1940's Firestone console, good tone, \$400.00" (!)

One of the most important factors in determining if a jukebox is a desirable model is whether the mechanism is exposed. I have learned that "you can see the mechanism operate" in a phone conversation simply means that the service door is open. A "working" jukebox is one which plays a record after prodding, manually selecting the right record, etc. The fact that the record fails to reject, repeats, or the sound makes the hair curl on the back of the ears of rabbits for five miles doesn't count.

Here are some abbreviated translations:

Statement:	Translation:
"It hums"	Bring ear protection.
"Operates"	Set requires an operation to work properly.
"Three dials"	Three knobs.
"Bargain"	Good deal for seller if I buy.
"Nice finish"	Cabinet sanded and oiled or urethaned (no stain or filler).
"Good tone"	Reproduces 100 to 2000 Hz.
"It was working"	Worked when purchased new.
"Nice speaker cloth"	Replaced with drapery fabric.
"Rare"	Probably not more than 500,000 built.
"Needs a tube"	Set requires a total overhaul.
"Fair condition"	Unfair to buyer.

(ALL TOO TRUE, Cont'd.)

Statement:	Translation:
<i>"It was working"</i>	Seller plugged it in yesterday, and it blew the house main fuse.
<i>"Set lights up"</i>	Bring a fire extinguisher!
<i>"Needs a little work"</i>	Set is missing major parts such as cabinet, chassis or speaker.
<i>"One of a kind"</i>	a) Only one seller has seen, or b) uniquely modified by seller, or c) only one with particular combination of dents, dings and scratches.
<i>"One of the best built"</i>	Crosley or Midwest.
<i>"It picks up one station"</i>	Seller lives near the antenna of the local offensive broadcast station. If you listen carefully, you can hear the station with the radio turned off.
<i>"Antique"</i>	a) Almost as old as the person selling it, or b) Seller can't buy replacement parts anymore.

An Explanation of the California Historical Radio Society RADIO NEWS Audio Journal Vol. 13, No. 1 (April, 1989) BONUS RECORDINGS

After the 1934 Charles Apgar interview on this tape, and just before the commentary on it, there are two special bonus recordings from the Antique Wireless Association archives.

The first is the first radio relay across the Atlantic Ocean, done and broadcast March 14, 1925. Music originating at the Savoy Hotel in London, England went to the Pre- BBC studios of radio station 2LO in London, and from there by landlines to longwave station 5XX in Chelmsford, England. Station 5XX (listed at 26 kilowatts power) broadcast the program across the Atlantic on 187.5 kHz, at 1,600 meters wavelength. Here in the United States, RCA's station at Belfast, Maine received the longwave broadcast, and upconverted it to 2.5 MHz (120 meters) single side band (a very new technology then). Belfast relayed it to the RCA labs at Van Cortland Park, in New York.

The program was then sent by landlines to the RCA standard broadcast stations WJZ (New York) and WRC (Washington D. C.) which broadcast it on 660 kHz and 640 kHz, respectively. The voice you hear at the end of the recording is the A.W.A.'s Bruce Kelly, W2ICE, describing the relay and reporting that the log at the time noted "98% static and noise and only 2% music and call letters." This recording was given to the A.W.A. by member Ray Guy (11 AWA Old Timer's Bulletin #3 (Dec. 1970) p. 3).

The second historical recording is that of the first broadcast transatlantic satellite communication, via TELSTAR, circa 1962. It is a brief exchange between England and the U.S. As this recording illustrates, communication via TELSTAR was sometimes erratic. It turned out that the transistor circuitry deteriorated from the radiation of the Van Allen radiation belts. (They should have used tubes!) The radiation belts around the Earth had then only recently been discovered. See CHRS JOURNAL, July, 1984, p. 21.

TELSTAR was at the time commemorated in popular music, lending its name to a short piece of early synthesizer-like instrumental music that went to the pop charts. An engineer on the Bell Labs TELSTAR project was Gerald F. J. Tyne, author of *Saga of the Vacuum Tube* (Sams, 1977). Antique Electronic Supply says on the back cover of its edition: "When the era of miniaturization made TELSTAR possible he designed and personally made the inductors in the high frequency circuits of TELSTAR as well as the 'attitude coil,' popularly known as the 'hula hoop' which encircled it."

WORLD WAR TWO AIRCRAFT RADIOS DISPLAYED: GREAT SUCCESS AT LOCAL AIRSHOW

By: Henry Engstrom, P.O. Box 5846, Santa Rosa, CA 95402, (707) 579-2070

The B-17 bomber was the workhorse of the European theatre of air operations for the U.S. Eighth Air Force. Over the Labor Day weekend, an aviation group I belong to (Sonoma County Aviation Historical Society) put on a display of memorabilia and artifacts at the Petaluma Air Show. My contribution was the complete radio complement of a WWII B-17 bomber, and a ground to air WWII VHF radio set as well. It was great success and very popular with both old bomber crews, hams, and younger visitors. The whole show filled a hangar with displays such as these WWII radios, as well as : models, uniforms, Pan Am Clipper mementos, and Sonoma County WWII crash site artifacts.

The two photos show the B-17 radio display. Much of the equipment is familiar to some collectors. The smaller sets on top are the Command Sets, receivers and transmitters of the set SCR-274N. These were known as ARC-5 in the Navy, and painted all black crackle as opposed to the bare aluminum. Shown are the various receivers and transmitters (covering the frequency range 0.19MHz to 9.1 MHz), the associated control heads and an antenna relay. The Command Sets were used only to communicate among the aircraft in formation. A BC-357 Beacon Receiver sits under the top two transmitters; it is the small silver box and was used for navigation.

The radios for communication with ground stations, known as the liaison set are at the left of the display. They are a BC-375 transmitter and a BC-348 receiver.

The BC-348 receiver was very popular among amateur radio operators, as the conversion to ham band use were straightforward. The ARC-5 / SCR-274N Command Sets were also very popular for conversion. The BC-375 transmitter, on the other hand, was practically useless as it would block out TV reception in a whole neighborhood! Some 1949 surplus advertisements for some of this gear are reproduced here (from Radio-Electronics magazine).

The VHF set (in the second photo, in its chest with an Army chair) is also WWII vintage. It is a BC-639 receiver, 100 MHz to 156 MHz. It was used to communicate to aircraft near the landing fields and for direction finding also. Coincidentally, this is the type of set I once operated on a mountain top in Korea in 1956.

A WWII B-17 Radioman by the name of Ben Winger recently shared his experience of his WWII days in the Eighth Air Force: he never minded the people shooting at him, it was the boredom that drove him nuts! He sat in the lead plane for many loud, vibrating, boring hours to the target, and then got to send only a single brief message to the formation of "Bombs Away!" That was it; then many hours of loud, vibrating boredom back to base. He did it often enough to get the multiple-mission air medal with five clusters.

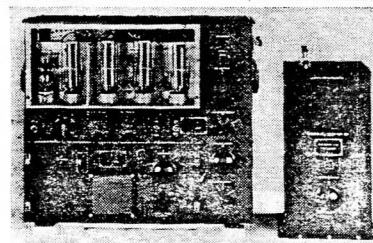
Operators were forbidden to send anything other than this coordinating message, to preserve radio silence. If in distress, they could go down to a lower frequency to send a Mayday, and they could communicate with base after the raid on the approach back to the field. Mr. Winger also said that he liked National-made equipment because it was rock solid, and that he did not like Hammerlund sets because they drifted in frequency after a while.

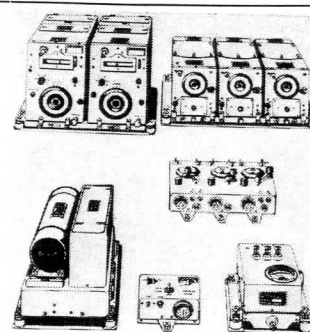
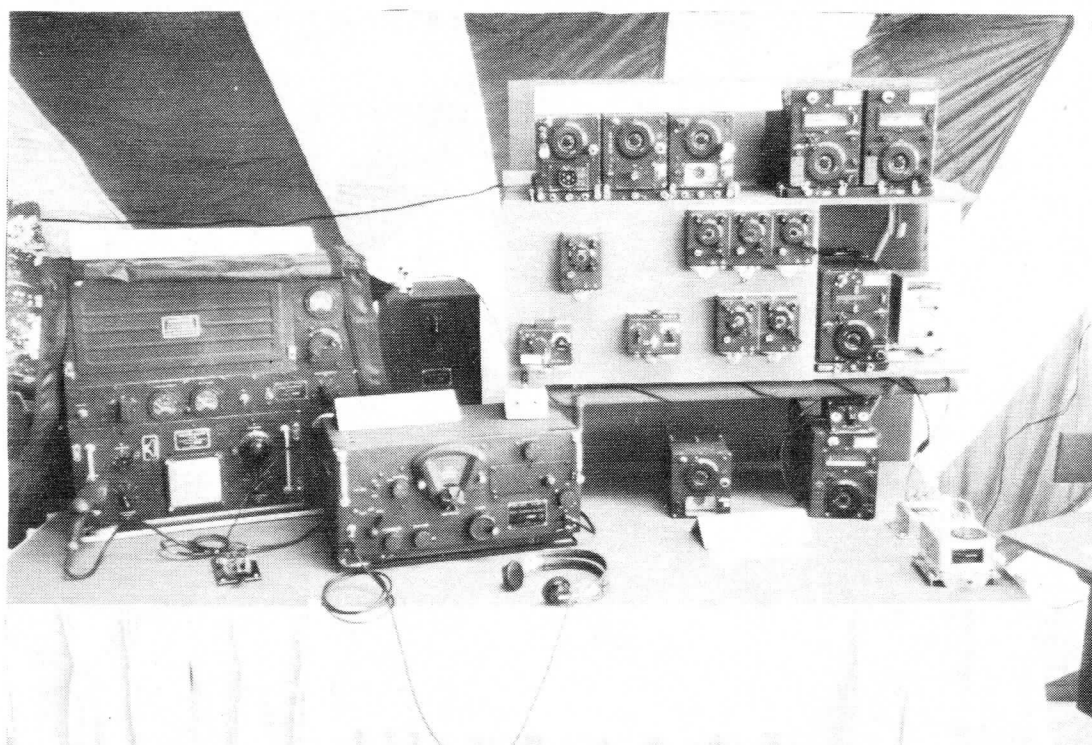
Henry is an avid collector of WWII military radio equipment of all types, including: aircraft, ground and vehicle radios. He is presently assembling the components of a B-17 radio compartment, which will eventually be a permanent public display, perhaps in a future Sonoma County Aircraft Historical Society museum, and/or in a travelling exhibit. He welcomes your calls about any WWII radio equipment, and has a fairly extensive reference library.

GENERAL ELECTRIC 150 WATT TRANSMITTER

Cost the Government \$1800.00 • Cost to You—BRAND NEW—\$100.00

This is the famous transmitter used in U.S. Army bombers and ground stations, during the war. Its design and construction have been proved in service, under all kinds of conditions, all over the world. The entire frequency range is covered by means of plug-tuning units which are included. Each tuning has its own oscillator and power amplifier coils and condensers, and antenna tuning circuits—all designed to operate at top efficiency within its particular frequency range. Transmitter and accessories are finished in black crackle, and the milliammeter, voltmeter, and RF ammeter are mounted on the front panel. Here are the specifications: FREQUENCY RANGE: 200 to 500 KC and 1500 to 12,500 KC. (Will operate on 10 and 20 meter band with slight modification for which diagrams are furnished.) OSCILLATOR: Self-excited, thermo compensated, and hand calibrated. POWER AMPLIFIER: Neutralized class "C" stage, using 211 tube and equipped with antenna coupling circuit which matches practically any length antenna. MODULATOR: Class "B"—uses two 211 tubes. POWER SUPPLY: Supplied complete with dynamotor which furnishes 1000V at 350 MA. from either 12 or 24 volts. Complete instructions are furnished to operate set from 110V AC. SIZE: 21½x23x9¾". Total shipping wgt. 300 lbs., complete with all tubes, dynamotor power supply, seven tuning units, antenna tuning unit and essential plugs. NOTE: Price increases to \$100.00 effective Oct. 1, 1948.

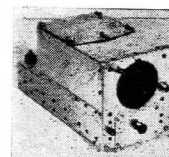




SCR-274N COMMAND SET

The greatest radio equipment value in history. A mountain of valuable equipment that includes 3 receivers that use plug-in coils, and consequently can be changed to any frequencies desired without conversion. Also included are two Tuning Control Boxes; 1 Antenna Coupling Box; four 28V. Dynamotors (easily converted to 110V. operation); two 40-Watt Transmitters including crystals, and Preamplifier and Modulator. 29 tubes supplied in all. Only a limited quantity available, so get your order in fast. Removed from unused aircraft and in guaranteed electrical condition. A super value at \$34.95, including crank type tuning knobs for receivers.

COMMAND RECEIVER— AC POWER SUPPLY AND SPEAKER



BC 454 COMMAND RECEIVER

3 to 6 Megacycles. Covers 75 and 80 meter amateur band. Price with schematics, new.....

\$6.95

TUNING CRANK for Comm. Receivers 65c ea.

MARKER BEACON RECEIVERS

BC-1023 Receives 75 Mc. Modulated Signal. can be varied from 62 to 80 Mc. Operates self-contained sensitive relay that can be used to operate equipment from remote point. Needs only 12 to 14 Volts DC for filament and plate voltage. Complete with 4 tubes, schematic. Shock mounted. Size 5 3/8" x 5 3/8" x 3 7/16". New, in original boxes.

\$3.50

TECH TIPS

By: Jim McDowell

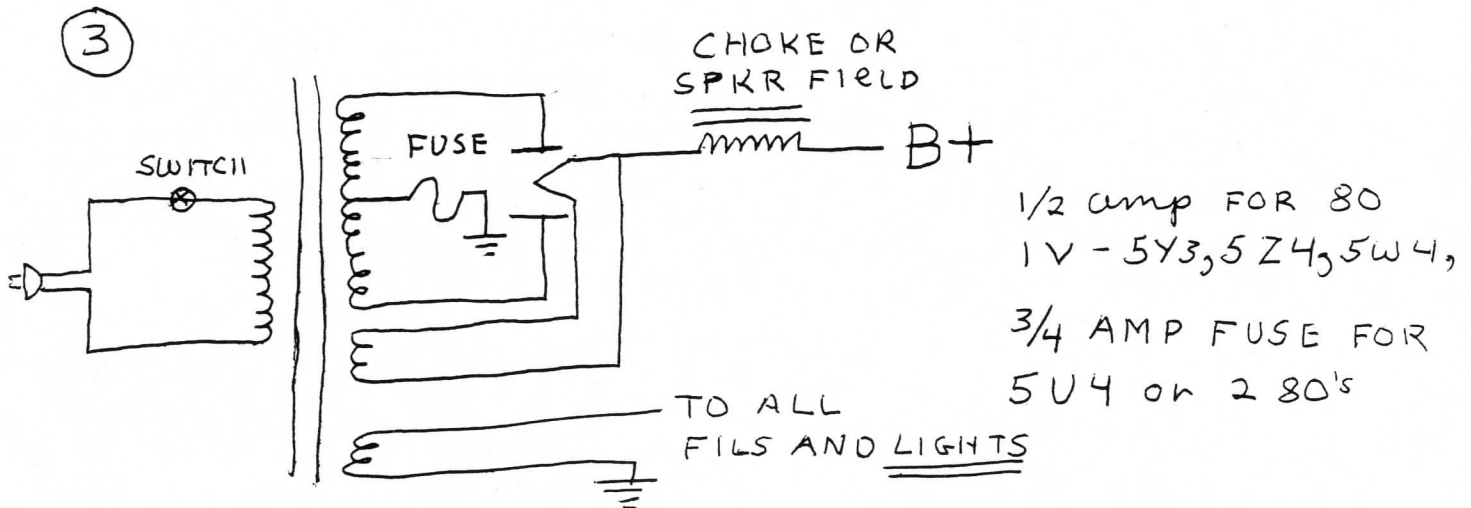
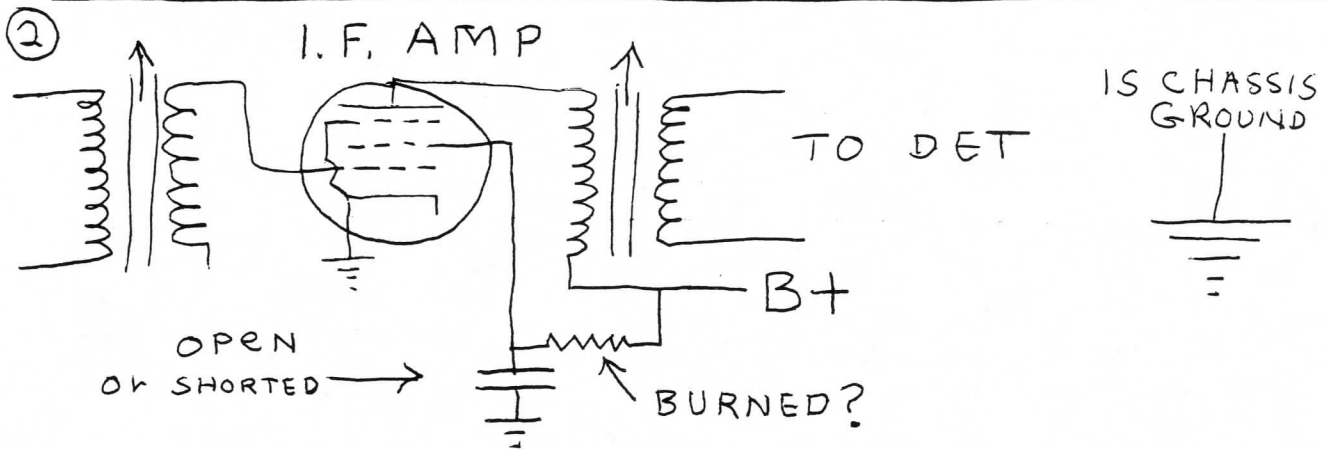
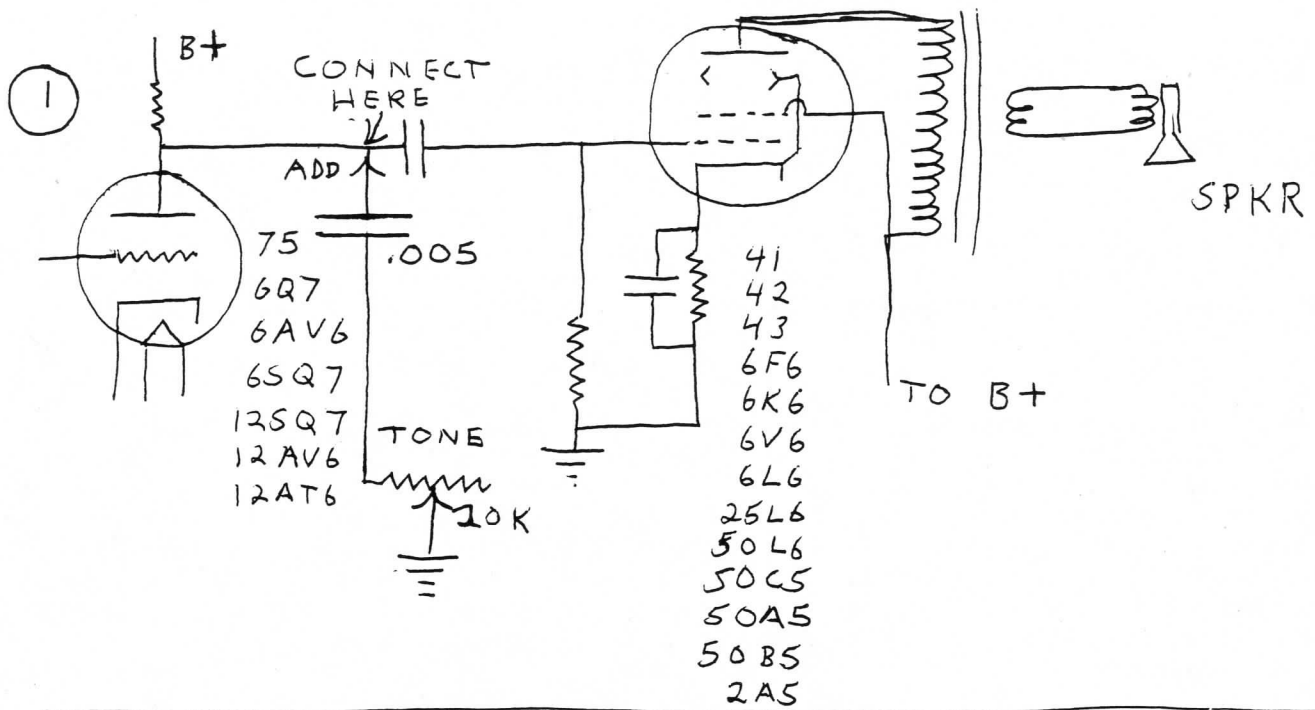
1. You need a 50B5 and need it now!. All you have to do is reverse pins 1 and 2 and reverse pins 5 and 7, and now your set will use a common 50C5 tube.
2. If you need a 25A6 you can just plug in a 25L6.
3. No matter how well a radio seems to play always replace the coupling capacitor between the first and second audio on pin 5 of octal tube types and pin 4 of 41, 42, 43, type tubes. This capacitor most often leaks and will distort the sound after the radio gets warm. Also replace the tone capacitor on pin 3 of octals or pin 2 of 41 type tubes. You may also remove this capacitor if you want more treble.
4. To protect a power transformer in a set, install a one half amp fuse between the high voltage secondary center tap and ground. In some sets the secondary does not go straight to ground. In this case, place the fuse between the secondary center tap and the rest of the circuit. It is also a good idea to check all dial light wires. (See diag. no. 3)
5. In late twenties and early thirties transformer coupled push-pull type sets (some dog coffins) the tone can be greatly improved by placing a .01 capacitor in series with a 10K pot and connecting the leads to the control grids (first grids of output tubes) and then adjusting it to your taste. This adjustment works in the mid frequency range and will enhance the lows and highs if adjusted properly.
6. Tone controls may be added to any radio! To do so add a .005 mfd. @ 600 volt capacitor from the plate of the first audio amplifier through a 20K pot to ground.
7. Switches that you can't seem to get clean will clean up using Blue Stuff, a TV tuner cleaner sold only at electronics parts houses (in San Francisco, ARDCO, 1583 Howard St.) (They also supply a lot of other things that we need to repair old sets). This will also work on controls as well. Radio Shack has lots of stuff like this, and a selection of high voltage capacitors, and 1/4 watt resistors as well
8. Weak reception on a superheterodyne set may be caused by open bypass capacitors in the I. F. stages. (See diag. no. 2).
9. Those valuable little metal sets can be made safe to operate by using a grounded three wire cord and plug. Just replace the old cord with the new one and ground the third center wire to the cabinet. Make sure the cabinet is grounded by connecting an ohm-meter to the cabinet and the third (big) prong. Use these sets only on a grounded outlet.
10. Old FM band 42-48 mHz sets can be useful still to pick up TV sound. Connect the antenna of the radio to a metal plate under the TV set and tune the radio until you hear the TV sound. The sound will change as you change channels on the TV. Some TV's are so well shielded that you may have to open up the TV and glue a small piece of metal on top of the video I. F. chip and run a wire to the FM antenna terminal. Do not make any direct electrical connections to the TV!!

Have Fun!



SCIENTIFIC AMERICAN

APRIL, 1939: "Broadcasting of regular television programs to the metropolitan area of New York will start this month. The same time has been chosen for marketing the first commercial receivers. Television is bound to have profound effects on our social order. It will affect existing industries and create at least one new one. Someday it may encroach on other entertainment and educational media. Perhaps it will cause a change in the styles of presentation used in other media."



1989 Jim

AN AMERICAN IN PARIS, REVISITED AND REVISED

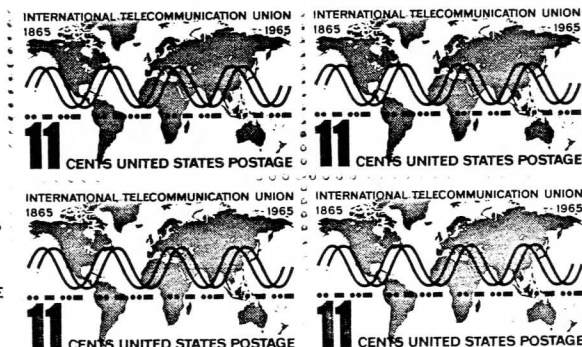
By: Kevin Pontius

There I was, spending the Christmas and New Years holidays visiting my friend, Jan, in Paris, France. The great wealth of history kept intact and preserved in Paris is evident from its many old and beautiful architectural masterpieces. But one can only stand so much awe at a time and it was time for a change--I wanted Jan to show me the funky low-down side of Paris. (There surely must be one.) We hopped on the Metro and took the train up to the North outskirts of Paris to Clingencourt-site of the Parisian fleamarket.

At Clingencourt, things started getting funky--this was "flea market-mania" at its best. Clingencourt is like a permanent fleamarket district, in fact business thrives around fleamarketeering. First, we passed by the leather shops. Here was leather by the loads, enough to bring back the Old West! I was relieved to walk away with my own hide! Soon we were in the midst of fleamarket city. My Paris tour book informed me that there were several sections to Clingencourt: Biron, specializing in collectible and valuable antiques; Vernaison, household and furnishings, Cambio, clothing; Marche, art... We were looking for an old clock as a French souvenir to bring back to a friend. The Biron district was loaded with old clocks, many from the Napoleon era, so many that I wondered if there was enough time for them all to keep! We pursued old clocks here and old clocks there, looking for the right one. And then, I saw one. An old clock?, heavens no, an OLD RADIO! I had been having so much fun in Paris that I had forgotten totally about collecting old radios (yes, that IS possible). A Sonora table model from the early 1940's. But it was off to look for more clocks so we walked towards the Vernaison district, the old Sonora pleasantly in the back of my mind.

Then it happened! Like an old bloodhound, I was sure I could smell old radios in the air--the musty cabinets and the sounds of distorted and weak audio stages, the warm marmalade glow of old tubes. We continued down narrow cobblestone streets. Sniff, sniff, yes, I had to be near something! Jan held me back and heeled me--just across the street was an old electronics shoppe! I began panting, slobbering, and howled with delight. Like Gershwin's "An American in Paris" I could hear old radio tunes coming from the shop. Taming my slobber with a handkerchief, and trying to keep my hands from reaching for the francs in my wallet, I delightfully looked at the old sets stacked in front of the store--my anticipation tighter than an RF coil! Several Doucret-Thompson table sets from the 1940's. Another Sonora, a Pathe, Phillips, Telefunken, and some oddball French-named sets, "s'il vous plait" (if you please). and pleased I was. But time moved in faster than old clocks could count it, and the shop was closing up for the day. "Quick, Jan! Ask the man when they will open up again". I was mumbled by the foreign language and stood by "dumbly" as she adroitly asked the owner of the shop's hours. 10 'till 6 was the translation. That night, I had dreams of sugar plum fairies with glowing '01A's on their skirts in the Land of Blue Arcturus!

Well, Paris has its other diversions and it was another four days before we got back to that store. Unhappily, by then, the Doucret-Thompson set I really liked was sold (whine, whine). The original asking price was 550 FF (approx. \$90). It probably sold for less, as Frenchmen like to bargain as well as Americans. Jan and I ventured down some of the other undiscovered alleyways of Biron. About every fifth shop had an old radio or several, crammed and stacked on shelves. This radio hound was having a hay-day!. Several places had some very early crystal sets and wireless equipment. Many merchants too, had high prices to perhaps compensate for their lack of knowledge on their real worth. Prices of 1500 FFr. (approx. \$270) and up were seen on the earliest gear. Paris had taken its toll on my wallet though; the exchange rate at the time was not conducive to stretching the ol' U.S. Dollar. But I had to find a French set as a souvenir, and it had to be under \$50.



(PARIS, Cont'd.)

We sniffed out many radios of the 1940's and 50's. I found one interesting 5-band table model in a shop. Interesting in that its cabinet had a green leather-like design with metal trim. It appeared in very good condition. Jan expressed my wishes to the shop owner to hear the set operate. He took it from the shelf and plugged it into the 220V outlet. FOOMM! The shop immediately went dim. Here I saw an opportunity to bargain on the set as I suspected most radio sets shouldn't affect lighting this way. Some work would now be needed. With Jan acting as interpreter, the owner and I bargained down to 275 FF (\$42) for the set. I walked away, the set under my arm, as happy as a French clam! this is my kind of Paris!!

Had I had more luggage on my trip back, I could have also purchased a "Spring 56" set for \$12 in Biron.

Aside from the fleamarket at Clingencourt, there is one visit no radio "buff" or "buffet" should miss. That is the Radio France exhibit in the Radio France building along the Seine River. This is one awesome radio exhibit, though not heavily advertised. For a nominal fee, you can take one of the daily tours of their building. The tour lasts about an hour and includes stops at several recording studios, an acoustically superb theater, and a long corridor of vintage radio displays that would light up anyone's tubes! Here are very early wireless gear, early radio rooms with furnishings of the same era, wonderful old consoles and table sets from the 20's through 50's, early transistor sets, a rare 1931 television display, old studio monitors, and other unique radio apparatus. There is even a full room display of an early (1920's) recording studio. The tour is truly refreshing; followed by free literature on the Radio France network (and a nifty keyring).

The 5-band Reala table set that I brought back from France sits patiently in my basement awaiting some minor repair. Looking at it brings back memories of radio-hounding in the Clingencourt district with Jan. Paris really is a city of romance, especially for those who love to collect old radios!

SWEDISH RADIO MUSEUM

Erik Karlson maintains the only radio museum in Sweden and invites all interested people to correspond with him on things radio and welcomes visitors to his museum. He speaks and writes English quite fluently. The museum's address is: Tandsticksonrandet, V. Storgetan 18, Jonkoping, Sweden. Erik's home address is: Erik Karlson, Kanalgatan 3, 55242, Jonkoping, Sweden. For more information call Dick Johnson (415) 322-8805 in Menlo Park.

NEW MAGAZINE

For those of you who collect vintage televisions, novelty and catalin sets, try a subscription to Sight-Sound-Style magazine. Lots of information and prices for these specialties. Ads are \$.14 per word. Subscription prices for one year (4 issues, 16 pages each) are \$14 domestic and \$34 foreign. Contact: Harry Poster, P. O. Box 2224, S. Hackensack, NJ 07606. Harry Poster is perhaps the leading dealer in vintage TV's.

KILLER FIBERS AND DEADLY OIL! IN MY RADIO!?

**By: Ed Sharpe 2224 W. Desert Cove #205, Phoenix, AZ 85029
(602) 247-9420 (home) or (602) 861-1388 (work)**

With all the outcry about the dangers of asbestos in the press these days, we maybe ought to examine some of the items we collect for this substance. Doctors tell us that asbestos causes lung problems. Its fibers embed themselves into our lungs and do not ever go away. Then they cause cancer. Asbestos will just sit there, only later to haunt us with this malignant disease, especially if we smoke.

For those of you who have somehow missed the news on all of this, many things around us have asbestos on them. Let's take a look to see how many we can find in our workshops and radio collections. Older brake shoes had asbestos in them. Remember how you used to blow that dust out of your brake drums when you had the drum off the axle to examine the brake shoes? Beware of tape around heater ducts. This will look like a grey cardboard, but cardboard it is not: It is asbestos! These are two easy forms to find.

Let's take a look at our radio collections and see what we can find. In many older radios, asbestos was used to keep the heat of the tubes from ruining the top of radio cabinets. This will be grey-ish substance, and can be in either of two forms. Sometimes we find it as a hard grey material almost like a piece of plywood, but with that familiar grey color to it. In other cases it can be softer like a sheet of soft cardboard.

EITHER FORM IS DANGEROUS!

We can also find asbestos in the old resistance type line cords that drop the voltage going to the filament circuit of the radio in question. Of course by now, many of these once useful cords are now fraying. This will expose the asbestos fibers to the air, and any movement of this cord will cause asbestos fibers to become dislodged and become airborne. Yep! They are now headed for your lungs! Especially if you breathe.

Some ballasts will merely consist of some resistance wire wound on an asbestos form. I can also remember some electrical and radio equipment that used this form for voltage dividers in the B+ section of the power supply. You need to beware of these!

Do not confuse mica with asbestos; they are clearly different, both in color and level of harm. Mica, I do not believe, will have any harmful effect on you, whereas asbestos will be grey-ish in color and is harmful. Mica will also be transparent and look almost like plastic or layers of glass that is laminated.

THE OIL OF DEATH!

Much has been in the news lately about the danger of a chemical substance named PCBs (Polychlorinated BiPhenols). In the Thirties, Forties and even later, these substances were used as an additive for oil filled capacitors to increase their breakdown voltage level. Now you may be asking how this affects you as a radio collector, right?

Yes, many of those oil filled capacitors in your favorite old radio and audio equipment have PCBs contained within the oil that is used as a supplement for the dielectric. Yuk!

SWAP-MEET COORDINATOR WANTED

CHRS needs a person to take care of the details connected with the Foothill swap-meets. Duties include: making the coffee, procuring the donuts or cookies, being there early to make sure things are set up correctly and that electricity is provided and making sure the lot is clean when the meet is over. Anyone interested in this necessary job should contact Paul Bourbin (415) 648-8489.

(DEADLY... Cont'd.)

Some of the most dangerous accumulations I have seen of these type of oil filled capacitors are in World War II military radio equipment. These capacitors will rear their ugly little heads in both receivers and transmitters. When these capacitors were manufactured, they were high reliability JAN-spec components: however, with the passage of time, these units begin to leak, oozing oil from around the seals on their terminals. The round, black capacitors with the stripes around them (similar to resistors) also are oil filled and common in post-war radios, TV's and audio equipment.

I would not advise disposing of these old capacitors by merely throwing them away, as once they get covered over by dirt in the city dump and the rain falls on this dirt the PCBs will be driven straight into the water table for you and your children to drink. Instead a discrete inquiry of your local branch of the EPA or your state government's hazardous waste department will tell you a safe place for the disposal of these carcinogenic little devils! Be discrete inasmuch as you would just as soon avoid a full fledged EPA raid on your radio collection construed as an illegal hazardous waste accumulation!

THE VACUUM TUBE, A REPAIR THAT SAVED AN OPEN FILAMENT

By: Ted Stewart, W6NPB, Oakland, CA

This is the story of an experiment that paid off after trying to save an unusual and special vacuum tube.

I'm restoring a Telefunken Opus 50 receiver, and during the entire repair and realignment of the set, the eye tube had no visible display. Close inspection of the tube through the clear area of the envelope, using an eye loupe, disclosed a .002 inch gap in one of the filament leads at the base of the element support. The tube is a type EM-11 Telefunken multi-eye. Having no data or basing diagrams for this foreign type, the first requirement was to identify the two leads running from the tube base pins to the filament leads inside the envelope. This was done as follows: provide a source of high voltage, high impedance that will jump the gap inside at the break.

I used a Stancor P-8150 power transformer that has a 1500 volt-1.5MA, and a 2.5 volt secondary. Do not use the 117 VAC primary. Arrange the 2.5 VAC filament as a DC input winding. Shunt the winding with a 1 MFD cap. Arrange to pulse the winding with a DC voltage of 1-6 volts. You'll need several amps available for this winding. The object here is to generate sufficient voltage at the secondary HV winding to jump at least a 10 to 20 thousandths gap. After you have identified two pins as correct for the filament, increase the DC potential to increase the discharge in the tube at the location of the break or poor weld. In my case, I found that the arcing of the break actually welded the gap with material. A check of the continuity was positive, and the set was turned on. The tube glowed brightly, and the green four segment display was a sight for sore eyes! The EM-11 is a four section display and it closes all four gaps simultaneously.

No statement is made as to length of time such a repair will continue to operate. Any extra time is your gain. As of this writing, the tube is still glowing. The set has had about ten cycles of off-on operation, and the tube still rewards with a fine happy green glow! Those of you who try this have nothing to lose if your filament is open. Try it and you may be pleasantly rewarded. Trying this on a metal tube is really an in the dark operation, but at least you know which pins are the filament. I look forward to hearing of others who have been rewarded with this procedure.

THANK YOU JOHN ECKLAND:

A special thanks to member John Eckland for putting that fantastic photo swap meet ad for CHRS in the October issue of Antique Radio Classified. Those of you who have not seen it should look: it is great!

THE "CADILLAC" of the 1920's CONSOLES

By: Chris Joseph Buttery

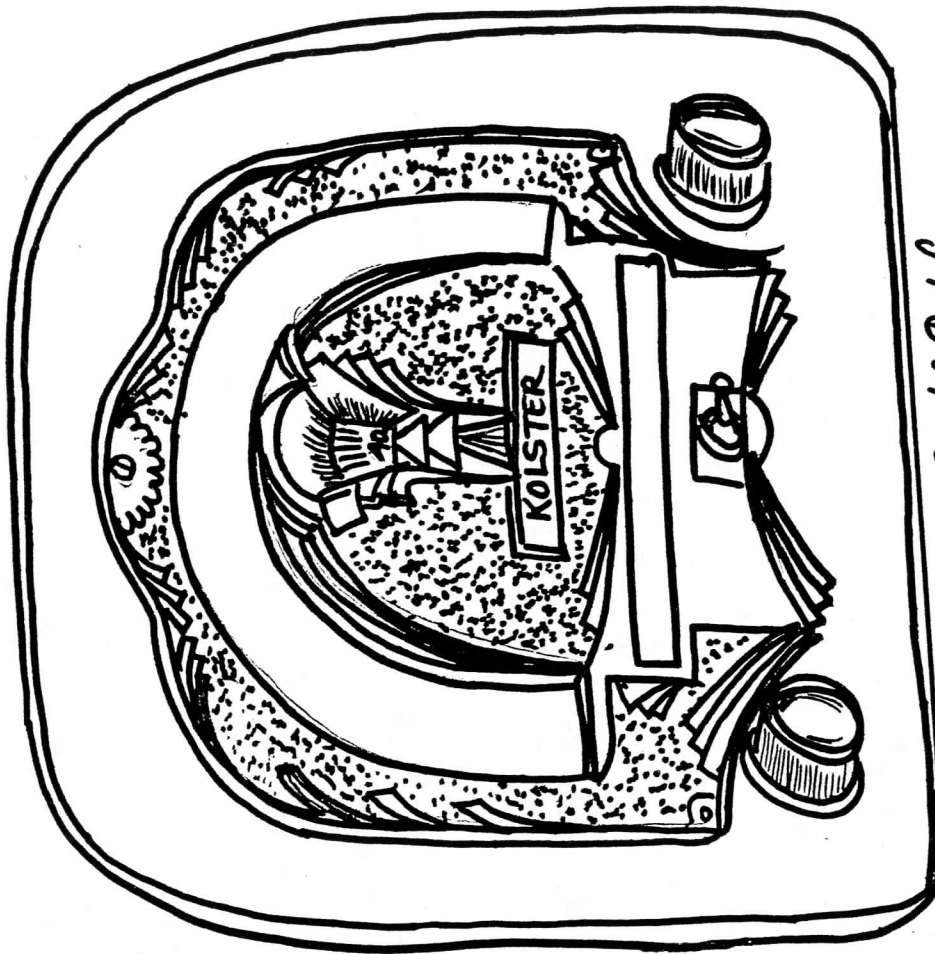
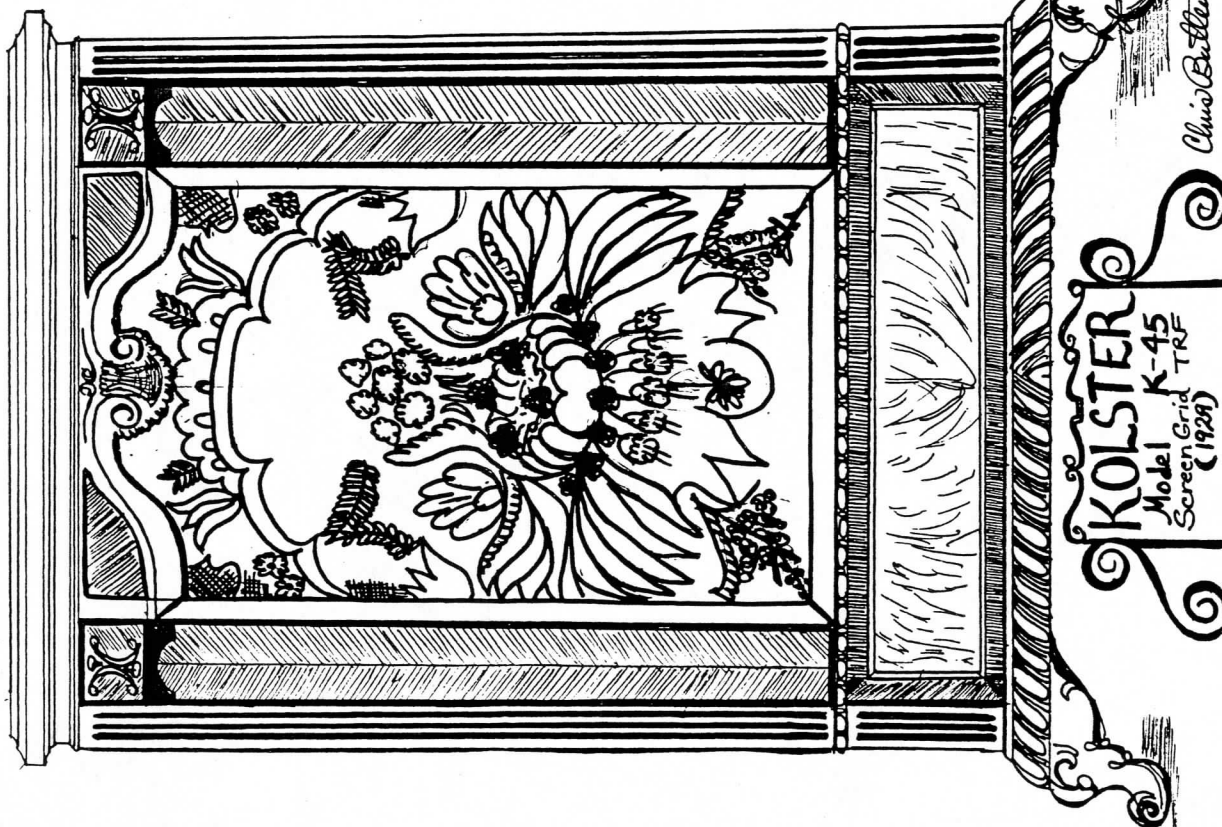
The Kolster K-45 radio is a highly unique and interesting console set well worth acquiring by anyone who is interested in late 1920's console radios.

It could be considered the "Cadillac" of radios for 1929, (its only year of production) mainly because its \$500.00 price tag put it out of reach of most radio buyers. In fact, it was probably the most expensive console radio produced by American manufacturers that year that wasn't part of an elaborate radio-phonograph combination. For the money though, the set did offer much in the way of performance as well as beauty. Elaborate carvings and a stunning floral patterned grill cloth grace the front, making it a highly imposing piece of furniture for even more elaborately furnished rooms. But an unusual feature of this set is that its control panel and dial face are mounted on the right side of the set, almost completely out of view. Another feature (if one was to find the version of this set completely intact) that was available was a unit which resembled the dial face connected in this set by a long string of wire, making it probably one of the earliest (if not the first) set that featured a remote control. The model K-45, also had a set of buttons on its dial face which were preset to the listener's favorite stations. Interestingly enough, this was not done in the same fashion, that we are accustomed to in late 1930's radios with either simple mechanical or electronic tuning presets. This model Kolster has an elaborate motor-clutch assembly which rotated the tuning condensers to the desired point on the dial.

The radio itself, was an 11-tube screen grid T. R. F., which was highly selective and sensitive. There is not much unusual with the RF and detector sections as far as I can see, although it does seem to have an early form of AVC. The RF section occupies one whole chassis; the entire set's electronics are spread over three large chassis, and a fourth was required if one owned the remote control version.

The audio chassis is what is most unusual. It used a type 27 tube for the first audio stage, this was then transformer coupled to two type 27 tubes used as drivers, in the second audio stage, for the two type 50 output tubes that are wired in a push-pull configuration with phase inversion. The result, is an extremely powerful high-fidelity radio for that time, which still sounds very impressive today. I would dare say that it ranks along with the best sets made before the second World War, with its outstanding performance making it a very desirable console radio to own.

Tube line up: RF chassis; 3 type 24A's as first, second and third RF stages; one type 27 as a detector. Audio chassis: 3 type 27's in the first and second audio stages; 2 type 50 power triodes as the output tubes. Power supply chassis uses two type 81 half-wave rectifiers. This unit puts out close to 1000 volts "B" voltage! This is necessary to power a large 15" electro-dynamic speaker that has the largest field-coil I've ever seen. The Southwest Museum of Electricity and Communications is seeking to acquire representative examples of early wireless, radio, broadcast microphones, telegraphy, telephony, electrotherapy and quack equipment. Books on the above topics are equally sought after also. Call or write Ed Sharpe, 2224 West Desert Cove Suite ## 205, Phoenix, AZ 85029 work (602) 861-1388, Home (602) 247-9420.



*Close-up of Control Panel & Dial face
on right hand side
of radio
(Non-Remote, Non-Pushbutton Version)*

ANTIQUE WIRELESS ASSOCIATION CONVENTION REPORT

By: Bart Lee

In early October, the Antique Wireless Association held its annual convention in Canadagua, New York, on the theme of early Television. Splendid demonstrations of mechanical scanning television and CBS color wheel television stole the show. Noted New Jersey TV collector and dealer Harry Poster, publisher of Sight, Sound, Style magazine, conducted a television auction on the first day of the convention. Some of the early TV sets brought out the collector's instinct in many an old radioman. Peter Yancer's mechanical scanning television was a persistent favorite of the crowd, both during the mass demonstration and even after the banquet, where one could individually appear via circa 1927 TV technology to the delight of the audience, and receive a commemorative certificate attesting to having been scanned at the AWA convention.

Several CHRS members attended, including Will Jensby, Larry Nutting and Marc Gottlieb. The highlight of the convention was the sweep of the Houck Preservation and President's awards by Mr. and Mrs. Bruce and Helen Kelly, a tribute to the contributions both have made over the years to the success of AWA. The banquet gave them a standing ovation. Bruce Kelly was one of the original half-dozen founders 25 years ago, and even he marvels at AWA's now 4,000 members. Well over 900 registrants attended this convention and with guests, more than a thousand people participated. Next year a larger Rochester hotel, the Marriott Thruway, will host the gathering.

The flea market was great, with a wide selection of both objects of technological, historical and stylistic interest (i.e. old radios galore), and related paper. One of the panel sessions dealt with the collection and preservation of radio related documentation. Much in the way of magazines, books and ephemera was in evidence from the sellers, particularly the really nice inventories of Jim Kreuzer's New Wireless Pioneers and Rainy Day Books. Less real old wireless gear was laying about than in earlier years, but there certainly were a lot of old and desirable radios.

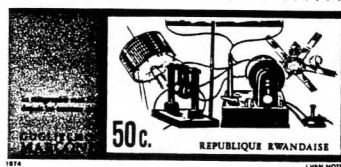
The auctions were noteworthy in two respects. First, DeForest gear went at a premium: an interpanel in a cabinet for \$1,700 and another DeForest multi-panel for nearly \$1,000. Secondly, catalins bombed; nobody bid at the minimum, and the crowd cheered. A surprise was a Crossley Pup, no box, for nearly \$300. The communications receiver auction topped out at \$235 for a Hammerlund SP600 Super Pro. An SX28 went for \$65. BC-348's went for between \$35 and \$55. A range of other interesting radios brought between \$5 (BC-453 radio compass) and \$195 (TMC GPR90) with most running between \$45 and \$95.

Several well-deserved awards honored displays. Peter Yancer took the Taylor Award for his Scanning Television systems. The Matlack Award for Transmitter Craft went to Neil Weigand for a circa 1928 TNT. Outstanding Receiver went to Billy Richardson for a circa 1928 Lueutz C-7 built from scratch, plans and all. A colorful and descriptive set of panels on the display of a 1930's Phillips European Radio took the award for Presentation. In keeping with the convention theme of TV, Best In Show went to the TV camera tube display.

The featured speaker, Richard Kozarski, curator of the American Museum of the Moving Image (New York), thanked AWA for preserving so much Radio, Television and Electronics history. Without AWA, he said, much of this heritage of technology would have been lost.

TRIVIA QUESTION

For who or what was the "Theremin," named? The answer will be published in the next Journal. The first person with the correct answer will win a prize and get their name published in the Journal. Send answers to Paul Bourbin.



ELECTION RESULTS

President: Paul Bourbin

Vice President: Bart Lee

Secretary: Russ Turner

Treasurer: Will Jensby

Membership Secretary: Adam Schoolskey

Publicity and Public Relations: Bart Lee

Chairman of the Board: Norm Berge

Board Members: George Durfey, John Wentzel, John Eckland and all officers *ex-officio*.

WIRELESS INTRIGUE CONTEST WINNERS:

We have four winners of the Wireless Intrigue Contest to copy the 1915 WSL and WHD morse transmissions as recorded by Charles Apgar. First Place and Second Place go to Ted Stewart, W6NPB, of Oakland, CA and Robert "Bud" Larson of Medford, OR. Ted won a CHRS Memorial Tube Checker, and Bud won a 1919 Young & McCombs catalog of Radio Telephone and Telegraph Apparatus of Merit. Runner up was Jeff Wakefield, who won a copy of A.A. Ghirardi's book, The Radio Physics Course (donated by Robert Johnson).

First Place in Part II of the contest, to copy WHD, goes to James A. Maxwell, W6CF, whose note on the WHD transmission appeared in the last Journal. Jim wins a reprint 1938 Zenith Radio catalog. Please note Jim's callsign is W6CF, (not W6CFC; sorry about that).

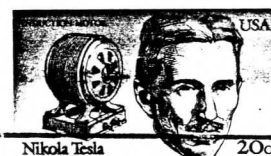
BUTTON CONTEST

At the last meeting, the idea of a membership button or badge for CHRS members was suggested. Submit your design for the button or badge before 1 January and the winner will get a year's free membership in CHRS. The design can be any size, but remember that it will be reduced to typical button size. Provisions must be made for a space for the member's name and call sign. It must be monochrome. For more information contact Paul Bourbin.



NIKOLA TESLA

This electrical genius
invented the world's first induction motor.



FIRST DAY OF ISSUE

CLASSIFIED ADS

WANTED: "Radio Vision" radios, Magnavox Imperial Radio/TV China hutch radio (see p. 105, Flick of The Switch), Zenith 1926 Chinese-like sets of books, Crosley refrigerator with radio (ca. 1939), lamp radios, and unusual radios. Also furniture pieces (bed headboards and dining room table) with original built-in tube radios. Gerald Schneider, 8750 Georgia Ave. #1410-B, Silver Spring, MD 20910. Tel. (301) 565-2840.

WANTED: Books on radio, electronics, telegraph, telephone, cameras and any other form of communication; artifacts and documents for my museum. Also, any material, information or artifacts pertaining to McCarty. **TRADE:** Have several extra Scott receivers for trade. Ed Sharpe, 2224 W. Desert Cove #205, Phoenix, AZ 85029. Tele. (602) 247-9420 (home) or (602) 861-1388 (work). Any CHRS members visiting Arizona are welcome to visit my museum, please call for an appointment.

WANTED: Almost anything made by Remler Co. Also wavemeters, old or new, complete or not. Rick Ferranti, WA6NCX/1, 254 Florence Ave., Arlington, Mass. 02174. (617) 646-6343.

WANTED: Riders vols. 21, 22, 23. McIntosh C11 or C22 preamp. Please, sell me your Zenith Chairside and your Scott in correct original cabinet! I'll treat them right!, Adam Schoolsky, (415) 791-0330

WANTED: HALLICRAFTERS SX-28 near mint with speaker. National NC100 (red panel); National FB-7 coils and power supply; National Manual for NC-156; National or Military Manuals or schematics for RBA and RBC receivers. Junker Federal gear for capacitors for restoration project. ARC-5 or SCR-274 receivers. Hallicrafters S-70 Portable. Documentation for Echophone EC-1 "Skyrider Jr." (not EC-1 Commercial). BART LEE, 327 Filbert Steps, San Francisco, CA 94133, (415) 788 - 4072.

WANTED: Information or artifacts pertaining to Francis or Ignatius McCarty. Contact: Ed Sharpe.

WANTED: PHILCO Cathedral with the large chassis. Also, Riders Vol. #21. Marc Ellis, Antique Radio Columnist, Popular Electronics Magazine, c/o BART LEE, 327 Filbert Steps, San Francisco, CA 94133, (415) 788 - 4072.

WANTED: Copy of the Table of Contents page only from Radio News, June 1941. Will buy magazine if necessary. Paul Bourbin, 25 Greenview Ct., San Francisco, CA 94131.

WANTED: World War Two military radio parts, pieces, accessories, etc. I'm restoring several sets and need the paraphernalia that goes with them, such as control boxes, jack boxes, junction boxes, tuners, cables, plugs, racks, mounts, filters and dynamotors. Even incomplete items are useful. Henry Engstrom, P.O. Box 5846, Santa Rosa CA 95402, (707) 579-2070.

WANTED: Information on Northern California Wireless activity between 1899 (the Farralons troopship signals) and 1914 or so. Anything appreciated: copies of book pages, magazine articles, photos, logs, rumors and speculations. BART LEE, 327 Filbert Steps, San Francisco, CA 94133, (415) 788-4072.

FOR SALE: Philco 511 (Their first AC table model). Asking \$150. Philco 513, with painted flowers. Asking \$175 Russ Goodlive, 1401 Franchere Pl., Sunnyvale, CA. 94087, (408) 732-1472.

FOR SALE: Brush Soundmirror tape recorder model BK-401, best offer. Scott 800B cabinet or entire set. Norm Braithwaite, P. O. Box 2443, Redding, CA 96099, (915) 246-4209.

FOR SALE: Wurlitzer Radio made in 1928 or 1929, needs veneer on top, plays, a really nice old radio with a Burnham cabinet made in San Francisco, \$75; Falck 1925-26 radio with four '01A's and BH rectifier tube, needs Carborundum detector, cabinet nice, \$50; ECA radio-phono combination made in 1946-47, this table model plays 78's only and has a beautiful tone, both radio and phonograph work; Gilfillan 3-band set with Bandwidth and tone controls, tuning eye, stationized [huh?, ed.] dial in a very nice cabinet, works, small console, \$300. **WANTED:** cabinet for A-K model 480, junker set ok. Jim McDowell, (415) 676-2605.

SERVICES AVAILABLE:

John Eckland, 969 Addison St., Palo Alto, CA (415) 323-0101. Radio, Jukebox and Hi-Fi equipment.

Larry Boysen, Jr., 1469-16th, Ave., San Francisco, CA (415) 681-8352. Cabinet repair, restoration, and refinishing.

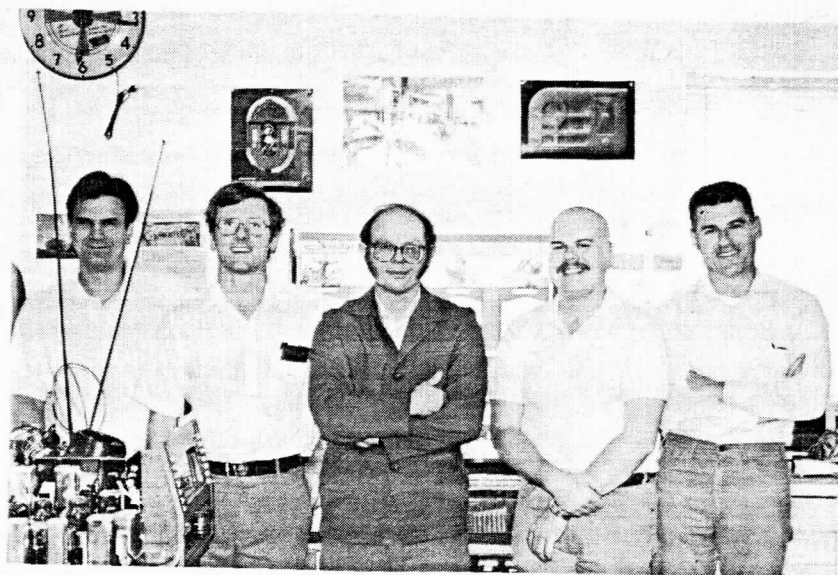
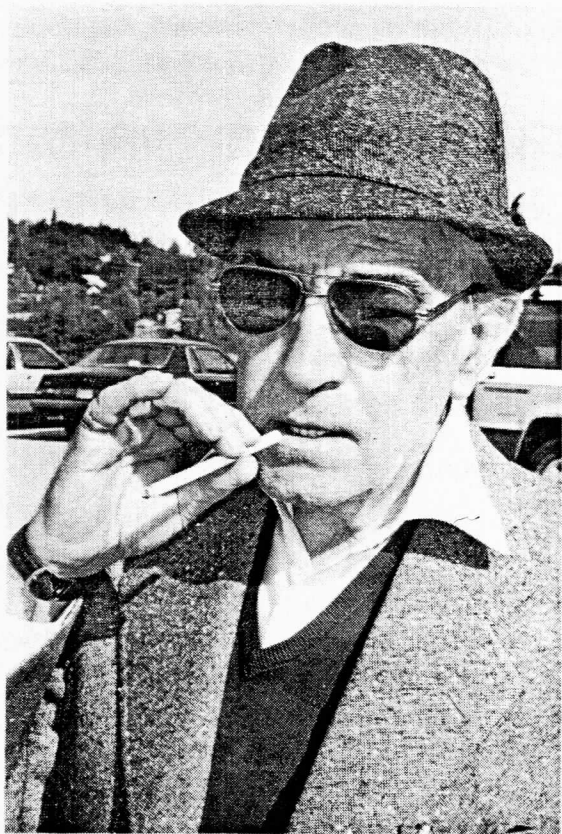
Jim McDowell, 2265 Panoramic Dr., Concord, CA 94520 (415) 676-2605. Radios, TV's, VCR's and Hi-Fi equipment; Predictas a speciality.



View of the Summer Foothill meet.

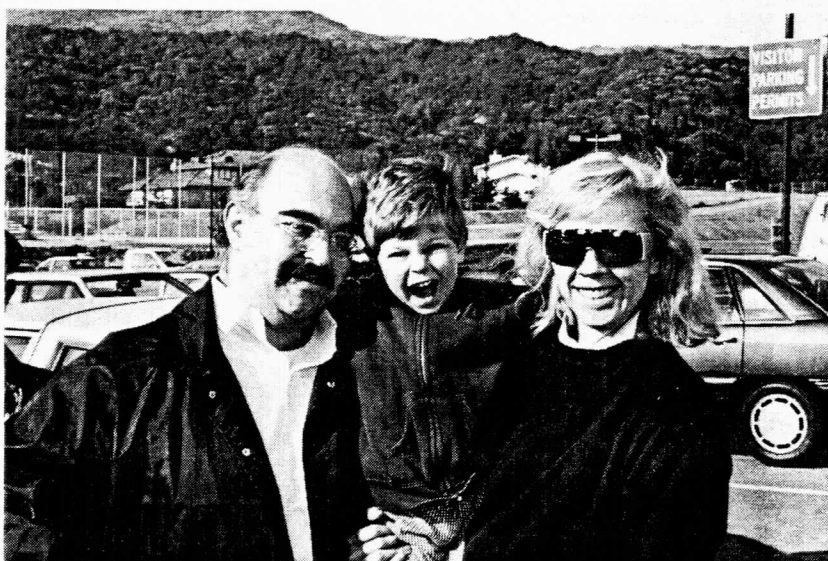


*CHRS's radio exhibit at Glendale Federal Savings
in San Francisco.*



A motley collection of CHRS members. L to R: Director, John Eckland; North Valley branch founder, Norm Braithwaite; President, Paul Bourbin; David Harden; Journal Editor Emeritus, Herb Brams.

Radio Historian, Author and Set Builder, D. H. Moore.



All photos taken by Ed Sharpe.

Vice-President and Journal Co-Editor, Bart Lee and family.

NOTICE

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