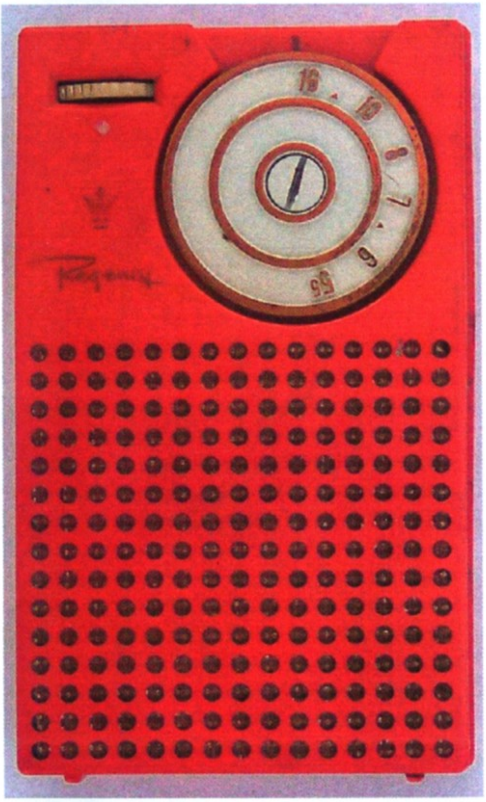
BULLETIN

Indiana Historical Radio Society

PRESERVATION FOR POSTERITY

Vol. 34 Spring, 2004 No 1



Regency....

Is the Theme for our May Meet. See Inside for Meet Details.

← *Regency* TR-1G

Officers	Responsibilities
Terry Garl, President 54980 Dawn Drive Osceola, Indiana 46902 (574) 679-4280 e-mail: teg53oscin@aol.com	Activities, Business, Administration, & Publicity
Bill Morris, Vice President 3545 Rock Maple Drive Indianapolis, Indiana 46235 (317) 895-1334 e-mail: bmorris@mw.net	Sites and Dates of Meets
Fred Prohl, Treasurer 3129 Lanam Ridge Road Nashville, Indiana 47448 (812) 988-1761 e-mail: indianahistoricalradio@att.net	NOTE → Applications and Correspondence Dues, Financial, and Address Change. Please Notify Immediately of Change of Address.
Herman Gross, Secretary 1705 Gordon Dr. Kokomo, Indiana 46902 (765) 459-8308 e-mail: hw12x12ihrs@sbcglobal.net	
Edward Dupart, Editor 1441 N. Church St. – Cadiz New Castle, Indiana 47362-9172 (765) 533-6272 e-mail: edupart3@hrtc.net	News, Articles, Photos, Radio-Ads
Dr. Ed Taylor, Historian 245 North Oakland Avenue Indianapolis, Indiana 46201-3360 (317) 638-1641	Donations & Scrapbook Material
Fred Schultz 1246 Lincolnway South Ligonier, Indiana 46767 (260) 894-3092 e-mail: olradio@ligtel.com	IHRS Museum Curator

Bulletin Deadlines: News, Articles & Radio Ads, 2/15, 5/15, 8/15, 11/15
IHRS e-mail Web site address: www.indianahistoricalradio.org

The INDIANA HISTORICAL RADIO SOCIETY is a non-profit organization founded in 1971. Annual membership dues are $15.00/year or 2 years/$25.00, which includes the quarterly IHRS "BULLETIN". Radio-Ads are free to all members. Please include a S.A.S.E. when requesting information. Send applicatins for membership and renewals to Fred Prohl, our treasurer as noted above.

IHRS/AWA – April 30 & May 1
33rd Annual Regional Spring Meet at the Johanning Civic Center
Kokomo, Indiana Friday
April 30 & Saturday, May 1, 2004

1500 N Reed Road – US 31 North, Kokomo, Indiana (765) 454-9999
Located on the northeast leg of the US31 bypass, the Civic Center provides space for an all indoor meet with ample room for all activities. The space is on ground level for easy vehicle unload/load. Many restaurants and motels are within a short drive. A snack bar is available at the center with a breakfast menu. The set up time begins at 3PM Friday with Swap N Sell from 4PM to 8PM, then Saturday starting at 7AM. Note that we have an **AUCTION** of about 90 radios immediately following the luncheon.

Meet Fees - Registration is $5.00 per family, good for both days. Swap n' Sell spaces are $10.00 each, one 8' table included good for both days. Awards Luncheon is $7.00 per person.. Need a small amount of table space? Sign up for "***Share a Table***" Pre-register with a request to share a table. We will hold a ½ table space for you at half the cost.

Pre-Register – Avoid a lengthy registration line! Send a check for meet registration, Swap N Sell table reservation, and Awards Luncheon (payable to IHRS) to: Fred Prohl, 3129 Lanam Ridge Road, Nashville, IN 47448

Friday April 30

3:00 pm Doors open for indoor Radio Swap n' Sell set up.
4:00 pm Radio Swap n' Sell Old Equipment Contest and Operating Radio entry set-up.
8:00 pm Doors locked for the evening.

Saturday May 1

7:00 am *Radio Swap n' Sell.*
Coffee and doughnuts at the vending stand. Indoor set up continues.
Consignment items registered for the auction (10% of sale to IHRS)
Donation equipment registered for the auction.
9:00 am Old Equipment Contest and Operating Radio set-up closes.
Doors close to additional setup.
Old Equipment Contest judging takes place.
10:00 am Registration of consignment and donation items for the Auction closes.
10:30 am Vintage Radio Repair and Restoration Seminar
11:30 am Awards Luncheon **Vintage Radio Door Prize!**
1:00 pm Auction of vintage radio equipment
3:00 pm End of Spring Meet – Have a safe trip home.

Old Equipment Contest Categories on the following page!

IHRS/AWA Spring Meet — Kokomo (continued)

The Old Equipment Contest - Open to IHRS and AWA members.
Contest entrants will be asked to show proof of membership.
The Founders Award is reserved for IHRS members.

Old Equipment Contest Categories:

1. Indiana Made Radio
2. 1920's Battery Radios
3. 1930's AC Radios
4. Celebrating 50 years of the pocket transistor radio.

4a. Regency transistor radio.

4b. The pocket transistor radio. This will be our "Context" category. Judging includes how well the radio is displayed in an appropriate setting.

5. Open – Radio Related You Decide!
6. An ***operating*** 1920's Battery Radio with a horn speaker. Open to all meet registrants.
7. An ***operating*** 1930's AC Radio. Open to all meet registrants. (IHRS and AWA members with operating radios on display will be entered in the Old Equipment contest as well.)

Display of radio or related equipment.
Want to show off a set, generate a discussion? Space will be available to place your radio related equipment on display.

Motels: (Listed from closest to Civic Center to farthest.)

1. Comfort Inn 522 Essex Dr (US-31) - - (765) 452-5050 or 1-800-228-5150
2. Clarion Inn 1700 E. Lincoln Rd - - (765) 459-8001 or 1-800-228-2828
(This was the old Ramada Inn for previous Kokomo meets.)
3. Motel 6 2808 S. US-31 - - (765) 457-8211 or 1-800-466-8356
(This was the old Howard Johnsons, adjacent to the Ramada)
4. Fairfield Inn 1717 E. Lincoln Rd - - (765) 453-8822 or 1-800-228-2800

(# 2, 3, & 4 are located across the street from Delco/Delphi)
Contacts: Fred Prohl, 812-988-1761 - - Herman Gross, 765-459-8308
Update information at ***indianahistoricalradio.org***

> Five RV hook-ups are available at the Civic Center for $20.00 per night. The space will be assigned "first come first serve" through pre-registration with Fred Prohl.

Remember: *Regency* is the theme for our May meet, so bring and display your *Regency* items and/or put them in the contest!!!

IHRS Summer Meet in Elkhart – September 11, 2004

IHRS Fall Meet in Greenfield – October 9, 2004

Other Club Activities

MSARC For information contact George Freeman ralogeum@aol.com

NARC ACTIVITIES -2004
For NARC meet info contact: Jim Thompson, 612-822-4000 or Kip Wallace, 612-544-2547, KipWallace@dl-inc.com

ARCI ACTIVITIES - 2004
All meets at Elgin, IL, RAMADA INN, 345 River Rd. 847-695-5000.
Info: Tom Klienschmidt 847-255-8128 or Art Bilski 630-739-1060, OLDRADIO@NTSOURCE.COM

MICHIGAN ANTIQUE RADIO CLUB
July 9-10, 2004 Extravaganza Lansing, Michigan
Info: Oran Sauder murrellr@ameritech.net (248) 437-4413 John Reinicke – john.reinicke@fanucrobotics.com (248) 626-4895

Join the AWA-ANTIQUE WIRELESS ASSOCIATION
THE ORIGINAL AND LARGEST HISTORICAL RADIO-COLLECTOR GROUP The AWA publishes a quarterly Old Timer's Bulletin.
Membership is only $20 per year. Write to: Antique Wireless Association, Inc. Box E, Breesport, NY 14816 http://www.antiquewireless.org

Vintage Radio Auction – May 1, 2004
Presented by the Indiana Historical Radio Society

Johanning Civic Center – Kokomo, Indiana

The following items presented for auction are from one seller. The inventory list was created several years ago by the seller as a record of his collection. The record of g=good, f=fair and p=poor was his view at the time. Some radios are identified as nt or st (no tube or some tubes). While the auction organizers anticipate all the following equipment to be available at the sale and in the condition stated, IHRS cannot guarantee it. The IHRS auction crew expect additional items to be available from the seller as well as items offered by IHRS and AWA members.

RADIOS:

AK 12 ser# 4910 g
AK 20 g
AK 20 nt g
AK 30 g
AK 35 nt g
AK 35 g
AK 40 g
AK 40 g
AK 40 nt g
AK 42 g
AK 42 f
AK 44 g
AK 55 console g
AK 60 console g
AK 60 homemade box f
AK 70 g
AK 99 g
Airline 64BR1808A p
Airline g
Airline 94VG1811A f
Airline 62230 g
Airomaster nt g
Arcadia Six parts p
Apex g
Audiola g
Arborphone mod27 g
Bendix f
B. F. Goodrich R459 p
Bremer Tully counterphase g
Browning Drake 5R g
Brunswick 15 uniselector g
Brunswick 5W0 g
Crosley Showbox g
Crosley Showbox st p
Crosley Bandbox 601 g
Emerson 149 g
Eveready mod 1 g
FADA Neutrolette 192A nt g
Fine Arts g
Freed Eisemann 6 st f
Freshman Masterpiece nt g
Freshman Masterpiece g
Grebe Synchrophase MU1 g
Grebe Synchrophase Seven f
Grunow Teledial 12B g
Homemade g
Kaydette 400 f
Kennedy g
Kingston 700A f
Montgomery Ward (Tri-City) g
Neutrodyne type A g
Nightingale nt g
Northland g
Peerless cabinet & speaker g
Peerless f
Philco Transitone f
Philco 41300 g
Philco 40120 g
Philco 37610 g
Philco 41250 f
Philco 40120 f
Philco 3812 p
Philco Transitone g
Radiola 18 g
Radiola 44 AR594 spkr f
Radiola 17 g
RCA 348 f
RCA g
Silvertone 6152 g
Silvertone cabinet @spkr g
Silvertone good tubes p
Silvertone 4470 p
Silvertone f
Silvertone 6356 g
Sparton 930 g
Sparton mod127 g
Sparton 931 g
Steinite f
Stewart Warner magic dial f
Stewart Warner 900 g
Stewart Warner 705 g
Stewart Warner 206FA g
Themodyne g
Zenith 8A02 f
Zenith 6V27 f
Westinghouse WR209 f

SPEAKERS:			
AK M	g	RCA 100 A	g
AK L	g	RCA 100 A	g
AK E	g	Radiola mod 102	f
AK E	g	Radiola mod 100	g
AK E3	g	Silvertone WLS	g
Eveready Mod 3	f	Temple	f
Peerless	f	2 unknown spkrs	g

Boxes of miscellaneous radio parts and tubes.

IHRS Business News

IHRS Winter Meet - 2004

Meet Receipts	
71 family registrations	$355.00
27 tables	$270.00
sale of donated items	$3.00
total	$628.00
Meet Expenses	
Holiday Inn	$609.50
Insurance	$117.00
Total	$726.50

$360.00 membership dues were paid on 2/14

IHRS account balance as of 2/21/04 = $5770

Submitted by Fred Prohl, IHRS Treasurer

Treasurers Report

Balance - 3/23/01 report $6969.37

Expenses Bulletin	1125.08
Miscellaneous (postage, office supp.)	94.58
Spring Meet 30 yr celebration (cups, awards)	761.23
	804.77
Receipts Spring Meet	1074.90
Dues	750.00
Balance as of 6/23/01	$6008.61

Submitted by Fred Prohl, IHRS Treasurer

IHRS Business Meeting – February 14, 2004

IHRS Vice President, Bill Morris, opened the business meeting at 12:30 PM. The informal meeting was held at the Sunshine Restaurant following the Winter Meet at Indianapolis on Feb. 14th, 2004. Officers in attendance were, Vice Pres. Bill Morris, Treasurer Fred Prohl, Historian Ed Taylor and Sec. Herman Gross. Also in attendance was Shirley Gross.

Discussion: Disappointing attendance at Winter Meet. Expectations of a larger turn out because of excellent weather conditions this year did not materialize. About 8-10 tables were not rented and as usual, many participants left by 11:00 or so, hence the low attendance at our business meeting.

Discussion: On Friday, prior to the Winter meet, a new venue was inspected by Ed Taylor, Fred Prohl and Shirley and Herman Gross. The Winter Meet will move next year to the "Hornet Park Community Center", 5345 Hornet Ave., Beech Grove, IN. just ½ mile north of I-465 on Emerson Road. Easy to get to

and great parking. This is a very nice, spacious, newly renovated facility that will prove more economical for the IHRS. There will not be an opportunity to set up on Friday evening. Set-up on Saturday will start no earlier than 7:00 AM. More on this venue at a later date.

Discussion: High cost of insurance. It is believed only non-members are covered under or current policy. This will be looked into. It is understood we need insurance for the Elkhart meet, but do we need it for all others? Insurance costs IHRS over $120.00 per meet. Can we arrange coverage on a one day basis just to cover the Elkhart situation?

Discussion: Many aspects of the Spring Meet were covered. Fred Prohl has been in contact with the Johanning Civic Center and has contracted for space. He will be sending them table layout info. Shirley and Herman Gross visited the Johanning and Kokomo Visitor's Bureau facilities to clear up several concerns for the Spring meet. They will also negotiate the menu for the Awards Luncheon with the caterer. Member cost for the luncheon will be $7.00. Once again there will be a drawing for a radio prize for luncheon attendees only. Herman Gross is handling the large Auction and has contracted with a local auctioneer. The Old Equipment contest will be limited to Members of IHRS or AWA only. Contest participants must show proof of membership in either organization (which means their dues must be current). IHRS will advertise the meet in ARC magazine, et al. Members are urged to spread the word as well. This is your meet, so let's make is successful.

The meeting was adjourned at 1:30 PM.

Respectfully submitted: Herman Gross, IHRS Secretary

Cover and Back Photos: The TR-1G is owned by Ed Dupart, your editor. This is the radio I used to listen to the Indy 500 race on perched on top of the garage roof back in Detroit in the 1950's. Little did I know that many years later I would live only 50 miles from the Indy 500 race track. While this radio didn't go through batteries as fast as the tube portables, it did go through quite a few 22 ½ volt batteries. The later transistor radios didn't draw as much current and lasted a lot longer on a set of batteries. The two transistor XR-2A on the back cover I bought brand new at Ferber's TV in Detroit and it would go 24 hours a day 5 days a week for a month before the two AAA batteries died.

The TR-1's used a low IF frequency, 262Kc I believe, and the reason for this is that the gain of the transistors was so low/poor at high frequencies that they performed better at the lower IF frequency, which was also used in car radios.

Ed Dupart, IHRS editor

2004 *IHRS* DUES

Your Indiana Historical Radio Society membership is now due if your mailing label reads 12/03.

Please send a check payable to the ***Indiana Historical Radio Society*** in the amount of $15.00 for a one-year membership or $25.00 for a two-year membership.

Send your payment to:

Fred Prohl, IHRS
3129 Lanam Ridge Road
Nashville, IN 47448

Please include your current mailing address, if not on your check, and your email address, if you have one.
Questions concerning your membership should be directed to Fred at fprohl@att.net or call him at 812-988-1761.

Comments from the Editor

Ed Dupart

My apologies to Peter Konshak for miss-spelling his name in the last Bulletin. Peter has contributed some fantastic articles and he has a great website devoted to Firestone radios.

Please use e-mail or regular postal mail for sending articles and information to me. If you want to send me articles on a 3 ½ or 5 ¼ floppy, that's great, too. I can work with virtually any word-processing program for DOS or windows designed for IBM compatables. Please send computerized pictures in a BMP, JPEG or TIFF format. Pictures can be incorporated with the article done in Microsoft Word or WordPerfect. If you don't have your pictures computerized, send the photo to me, preferably 35mm. Polaroids lose detail when I scan them. If you want your pictures and articles returned to you, please let me know. Sorry, I'm not set up for Mac or Apple. Typewritten articles are fine, too, because I can scan those into my computer.

Send me a photo of your favorite/ unusual radio and I will put it in the Bulletin.

Upcoming articles: repairing transistor radios, replacing 3-6Kv capacitors in 3" to 9" early TV's and the LaVelle's museum.

Ed Dupart, IHRS editor

IHRS Museum Notes

Community radio station hits airwaves

By: By BOB BUTTGEN

LIGONIER - Fred "Fritz" Schultz has lived and breathed radios his entire life, so it was only fitting he looked like a proud father this week when the new community radio station for the West Noble area was turned on.

People tuning their radio dials to 105.9 FM this week, in the morning and early afternoons, may have heard music from the 1940s and '50s and the occasional public service announcement from either Schultz or the Rev. John Lutton, another local radio buff who is handling most of the on-air duties for the station.

The official launching of the station this week was the culmination of years of work and cooperation between volunteers, government agencies and local businesses.

The concept of low-power community radio stations such as WNRL (West Noble Radio Ligonier) is the result of grassroots lobbying of Congress and the Federal Communications Commission.

When Schultz and his daughter, Marcella, heard about the low-power FM stations (it's broadcasting at 65 watts), they went to work, searching for the proper way to apply for a license. The father-daughter team are co-curators of the Indiana Historic Radio Museum in Ligonier.

The application process for the station's license was long and difficult and there were some serious setbacks. At one point the FCC pulled the plug on the community radio station idea, due in part to protests from commercial broadcasters. But the people let their voices be known the process for granting licenses was reopened.

The station is noncommercial; there will be no advertising. But that's just about the only limit. The plan is for WNRL to be a community forum for news, information, sports, talk and just about anything.

We're still in the very early stages," Fritz Schultz said this week as he watched Lutton from the WNRL studios in the city's recreation center at Kenney Park. "We will continue to make changes and improvements. We're feeling our way through this."

Broadcasting hours are roughly 7 a.m. to mid-afternoon and will be expanded as more people become involved.

Schultz and Lutton invite the public to become involved with the station. The studio phone number is 894-9777, or Schultz can be reached at his business, Indiana Antenna Supply, at 894-3779, or by e-mail at olradio@ligtel.com

One of the main components of the station is for it to be used as a learning tool for West Noble students. A studio is also set up at the high school and, while the process is slow, eventually students may be handling much of the operation and programming.

"We're ready to broadcast West Noble basketball games live," Schultz said. "And for some of the other teams, including the middle school, we'd like to send someone over with a tape recorder to cover it and then play it back over the air."

Schultz is retired from the Indiana State Police where he handled the radio and communications equipment and duties.

While music is filling the station's airwaves in the early stages, Schultz and others are hoping that information and talk will replace the music.

There are dozens of people and businesses who have been involved with the start-up process. Many people have donated time and services and some have even given money. There are no tax dollars involved; any start-up costs came from privation donations, and some equipment and related costs came from the radio museum funds.

The transmitter is at the high school and the studio is in the recreation center building. The broadcast first goes through telephone lines from the rec center to the transmitter at the school. Eventually, Schultz and others are working on a possible microwave relay of the station, which will increase the quality of the sound.

The station has a range of anywhere from five to 10 miles, based on weather conditions.

BOB BUTTGEN

Photo Gallery

Canadian made Airline Lindsay. If you have any info on this radio please contact Ed Dupart. This radio has a beautiful dial with a lighted pointer.

In Memorandum

Marvin Hobbs 1912-2004

The last person to serve as Chief Engineer of the E. H. Scott Radio Laboratories with E. H. Scott was Marvin Hobbs. Marvin's life is a colorful journey through the electronics industry for over 50 years, spanning some of the most significant developments of this century. Marvin's contributions to the E. H. Scott Radio Laboratories will be forever remembered.

Marvin Hobbs was born November 30, 1912 in Dubois County Indiana, near the Ohio River. Raised primarily by his grandparents (his mother died when he was quite young), he grew up on the farm but loved the new world of radio. Experiments with crystal sets, and later tube sets confirmed his interest and abilities. Marvin attended Tri-State College in Angola, Indiana, and received his degree in electrical engineering in 1930. Radio was doing well in spite of the depression, and Marvin began his career as a junior engineer at US Radio & Television in Marion, Indiana. Marvin worked under Jack Pressley, who had worked with Edwin Armstrong on the superheterodyne, and Ken Jarvis, who would go on to become Chief Engineer at Zenith.

The depression caught up with radio, and by 1932, Marvin was laid off. This was only temporary, as Ken Jarvis was now at Zenith, and he invited Marvin to work there as well. Marvin was responsible for various aspects of automobile radio design while at Zenith. In an ironic turn, Ken Jarvis moved on during this time, and Jack Pressley came in to Zenith. In 1934, Marvin and Ken Jarvis teamed up again and worked on a synchronous detector circuit. Lacking the concept of a phase-locked loop, they had problems with the circuit and were unable to make it a production-worthy design, but still obtained a patent for their work.

In 1935, Marvin went to Stewart-Warner in Chicago. Obtaining a one-year consulting contract to work in England, Marvin left the US in March 1935. While in the UK, Marvin worked on automobile radio designs for the E. K. Cole company. In March of 1936, he returned to the US, and moved back to Indiana, taking a job at the Delco facility in Kokomo. On July 4, 1936, Marvin married Bernadine Weeks, who had worked as a secretary at Zenith. Being married didn't slow Marvin's life down though, and in 1938, he took Bernadine with him to Europe on another consulting contract. The Hobbs' traveled and worked throughout 1938 and 1939, in locations from Liverpool to Denmark and finally in Warsaw, Poland. They were in Warsaw when Hitler invaded Czechoslovakia. Knowing it was time to return to the US, they returned across Germany to Antwerp and across the Atlantic to New York.

In September of 1939, Marvin and Bernadine returned to Chicago. Bernadine had family there, and was quite happy to be close to home once again. Marvin started to work at the E. H. Scott Radio Laboratories, initially designing a FM circuit for the burgeoning new radio medium. Marvin's basic FM circuit is used in all the Scott pre-war FM sets. Marvin also designed Scott's first new AM-FM combination receiver, the Laureate.

Marvin was invited to join the war production board in Washington in the spring of 1941. He took a leave of absence from Scott for about a year, and served as the head of the Electronics Branch of the war production board. In 1942, Marvin returned and worked with Mr. Scott in the design of a "morale" radio. The radiation leakage from a superheterodyne receiver was a significant worry for the military and the Merchant Marine. Marvin was successful in creating a "Low Radiation" receiver, and was later granted a patent (#2,314,309) and service award for his efforts. During this time, Marvin also built the AR-1 radio, which was installed in President Roosevelt's aircraft, the Sacred Cow. The AR-1 is fundamentally a variation of the low radiation set with a remote console due to the unique installation requirements found in the aircraft.

In the spring of 1945, Marvin again took a leave to travel in the Pacific theatre for the War Production Board. From the spring of 1945 through the end of the war, Marvin was in the Philippines, and even in Japan after the end of the war. Marvin's role in the Far East was to evaluate the Japanese level of vacuum tube and communications technology. To this end, he visited a number of sites, including Nihon Musen (now Japan Radio), Sumitomo (now NEC) and Tokyo Shibauru Electric (now Toshiba) factories. This trip also included a visit to a field hospital, where Marvin spent two weeks recovering from malaria. His tours included military establishments, training sites and the Naval Radar School. Marvin prepared numerous high level reports for the Far East Air Forces. A public example of this work can be found in the May 1946 issue of Electronics magazine, which has an article on "Japanese Magnetrons" by Mr. Hobbs.

In September of 1945, Marvin returned to Chicago and resumed his work with Scott. Marvin designed and built one of the last highly successful Scott sets in 1946, the 800B. The success of the 800B is attested by the numbers that survive today. The capabilities of the 800B make many collectors feel this is the last "classic" Scott radio built. In January 1947, Marvin went to RCA to head up the Berkshire development, remaining there until 1949. Ultimately, only a limited number of the famed RCA Berkshire sets were ever built.

The Korean conflict saw Marvin return to Washington, again sitting on the Munitions Board. Marvin found the government systems frustrating, requiring many signatures and numerous approval levels. At the conclusion of the conflict, Marvin returned to private industry in the fall of 1952. For the next

decade, Marvin held a variety of vice president and director positions at a number of companies. Mostly, these companies hoped that he could win them government contracts with his numerous connections in Washington. Some of these companies included Harvey Wells, American Machine & Foundry, American Bosch, Stewart Warner, General Instruments, and Burroughs. During this same period, Marvin began to write, publishing his first text (on missile guidance and space techniques) under John F. Rider's label in 1954.

By 1963, Marvin and Bernadine wished to return to Chicago. Marvin became a principal in the Design Service Company. Until 1967, Marvin supervised contract work with the Western Electric division of AT&T, developing central office layouts and planning. In 1968, this business was sold to Dictaphone. As a result, Marvin took a position with Gladding Corporation. From 1969 to 1979, Marvin traveled to the Far East for Gladding, overseeing imports of communication equipment from Japan, South Korea, Taiwan and Hong Kong. Marvin continued to write during this time, publishing a text on telephone switching systems in 1974.

In 1979, at the age of 66, Marvin signed on with Bell Laboratories in Naperville, IL as a senior technical editor. In 1981, he produced a 2nd edition of his telephone-switching book. Finally, in 1982, at age 70, Bell forced Marvin to retire. Forced retirement didn't stop Marvin, and during 1983 and 1984 Marvin worked for Oki, consulting on translations of manuals from Japanese to English. Firmly in retirement, Marvin continued to write, publishing his history of Scott radios, The Dean of DX in 1985. In addition, he published a Tab book on servicing VCRs and another on servicing camcorders.

Marvin's beloved wife Bernadine became ill in the 1980s, and her passing in May 1991 was a blow to Marvin. Now well past 80, the often harsh Chicago winters began to take a toll on Marvin. In 1996, Marvin packed his books and papers, and moved to Chapala, Mexico, where there is an eternally warm climate. He continued to write, producing a book on multi-function computer printers in 2000. In 2002, Marvin collaborated with John Slusser to revise the 2nd Edition of "Dean of DX", published in 2003.

Marvin was an avid reader and writer, and he remained mentally well to the end. On his birthday in 2003, we spoke again of Scott and his radios. I had recently found another magazine article he had authored back in 1940. As soon as I mentioned the subject, he went into a detailed discussion of the article, recalling many specifics. His health failed in December 2003, and Marvin passed quietly in his sleep on January 9, 2004. I know that I will never again look at a Scott radio without thinking of Marvin and his role in the creation of these great sets. An entire industry benefited from his life's work, an amazing legacy for a farm boy from Indiana. Kent King January 2004

EASY BIAS RESISTOR CALCULATIONS

By Herman Gross

I've been "restoring" a model K-60-S power pack for a Freshman Masterpiece TRF and in checking the component parts I discovered the bias resistor for the 71A power output tube was open. That resistor is part of the supply, being connected to the center tap of the 71A filament winding. The Rider schematic (Freshman page 1-5) didn't give values for any of the three resistors in this unit. Actually, my K-60-S doesn't look exactly like the one depicted in Riders. In fact the Rider schematic is in error and the unit would never work as shown. So...it was up to me to figure out what the proper value of bias resistor should be. Yes, you can look in an older RCA tube manual and there they give a recommended value for bias resistor (they call it a cathode resistor). But those values given are for only three values of plate voltage/plate current. Be careful, you must add half the filament voltage to the given bias value if you operate the filament on AC!

The first objective was to determine the conditions under which the tube was being operated in my radio. I didn't have any info on the regulation to expect from the brute force filtered power supply, so, from some operating condition charts of similar Freshman receiver models, (I don't have the schematic for my radio!!) I estimated a typical load on the B+ and the lower detector voltage outputs to get a feel for how good or bad the power supply was. From voltage measurements under load I could get an idea of the way the 71A was being operated and hence, could figure the bias voltage, from extrapolation of known RCA data....and I could use the handy dandy formula given below. But I digress from the real subject, bias resistor calculations for tubes using the "self bias" method when the value is not known.

A general equation can be written that will accommodate all tubes, and even for a situation where a common bias resistor is used for more than one tube.

$$R = Ecg \times 1000 / (Ip + Isg)n$$

Where: R = Bias resistor in ohms
Ecg = Control grid bias voltage in volts
Ip = Plate current of a single tube in milliamperes
Isg = Screen grid current of a single tube in milliamperes
n = Number of tubes passing current through the common bias resistor.

In the case of triodes the screen current term goes to zero. Using my single 71A triode application as an easy example and following the RCA data for plate voltage of 135 volts, the formula simplifies to:

R = Ecg X1000 / Ip = 29.5 X1000 / 17.3 = 1705 ohms

The tricky part is determining the actual operating conditions of the tube or tubes in question when manufacturers data is not available. Remember the plate and screen voltages are not the supply voltages but the actual voltages at the tube elements. This is always true, but especially for high resistance circuits. For my example I used the RCA handbook and you'll see we agree within 5 ohms. The + bias voltage applied to the filament (cathode) makes the control grid negative with respect to the filament (cathode). I know you knew that! I leave it to the reader to check the formula for multiple tube applications.

Herman Gross

Ed's Tech Tip©

Replacing the 6U5/6G5/6E5 with a 1629/VT-138 in a Parallel String Transformer Operated Radio

In the last issue of the Bulletin I discussed how to replace the 6U5/6G5/6E5 in your series string radio with a 1629/VT-138. In this issue I will discuss how to replace the 6U5/6G5/6E5 with the 1629/VT-138 in your AC transformer operated radio, without making modifications to the radio itself. The modifications will be in the adapter. The idea of using a voltage doubler for doing this has been around for many years and I tried it 20 years or more ago. One gentleman on the internet is using a half wave voltage doubler, but I prefer using a full wave voltage doubler because it is more efficient and the voltage across each capacitor is half the output voltage, which means smaller capacitors can be used.

First, a review of the specs of these tuning eyes from my previous article. The 6U5/6G5/6E5 have 6.3 volt filaments at .3 amp and the 1629 has a 12.6 volt filament at .15 amp. The 6E5 and the 1629 are more sensitive than the 6U5/6G5 in that less AVC voltage is required for eye movement. In some cases where I have replaced a 6U5 with a 6E5, I will have overlap of the eye on strong stations. This won't hurt the tube, but may be annoying to a purist. The 1629's heater is 12.6 volts at .15 amp and so it will require a 6.3 boost in voltage for proper operation. This can be easily achieved by one of two methods: an additional filament transformer which requires modifying the radio or a voltage doubler circuit. I will discuss the full wave voltage doubler technique, because it does not require modifying or removing the chassis on most radios. I used 1N4004 diodes because I have lots of them, but any of the 1N4000 series diodes

will work for this circuit, since the voltage is so low. Any surplus power supply diodes out of junk TV's should work just fine. I experimented with the capacitors and I found 470 MFD capacitors are the minimum values that can be used to maintain 12 volts across the 1629 heater and 1000 MFD and up will work better, but the bigger values get bigger physically. Using smaller than 470 MFD capacitors will result in a decrease in the heater voltage to the 1629. I used 470 MFD 10 volt capacitors and they work just fine. Do not use capacitors rated below 10 volts as there is about 6 volts on each capacitor in the operating circuit. The adapter I made is spread out so you can see it, but with some patience and smaller capacitors a smaller adapter can be made with the capacitors housed in the 6 pin socket. Here are the steps to do the conversion:

1. Obtain a bad 6 pin tube, preferably a 43 or 42 because the base is bigger and provides more room to put capacitors in. Wrap a rag around it and break the glass to the point where there are no jagged pieces. Wear safety glasses and gloves when you do this.
2. Using needlenose pliers, clean out the rest of the glass and dried glue in the base.
3. Unsolder the wires going to the pins and using a solder sucker, remove the rest of the solder. The pin should be clear of solder and ready to accept new wires.
4. Run jumper wires from the 6 pin socket to the octal socket, but do not attach the heater/filament wires coming from the 6pin socket to the octal socket. Leave pin 6 of the 6 pin socket empty. See the chart.
5. Insert the negative lead of one capacitor, C2, into pin 6 of the 6 pin socket. Insert the positive lead of the <u>other</u> capacitor, C1, into pin 6 of the 6 pin socket. At this point you realize it is important to have pin 6 cleared of excess solder to enable inserting two wires into one pin. Solder the pin.
6. Solder the positive end of C2 and the cathode end of D2 to pin 2 of the 1629 octal socket.
7. Solder the negative end of C1 and the anode end of D1 to pin 7 of the 1629 octal socket.
8. Solder the wire from pin 6 of the 6 pin socket to the junction of C1 and C2.
9. Plug it in and try it out.

	6U5/6G5/6E5	1629/VT-138
HEATER	1	2
HEATER	6	7
GRID TRIODE	3	5
PLATE TRIODE	2	3
TARGET ANODE	4	4
CATHODE	5	8

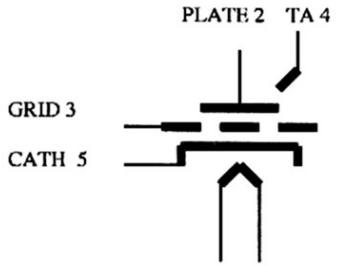


PLATE 2
TA 4
GRID 3
CATH 5
1
6
HEATER

6U5/6E5

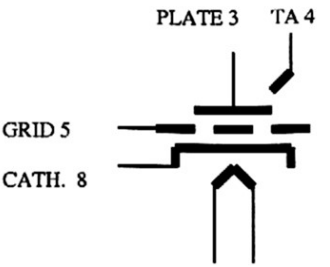
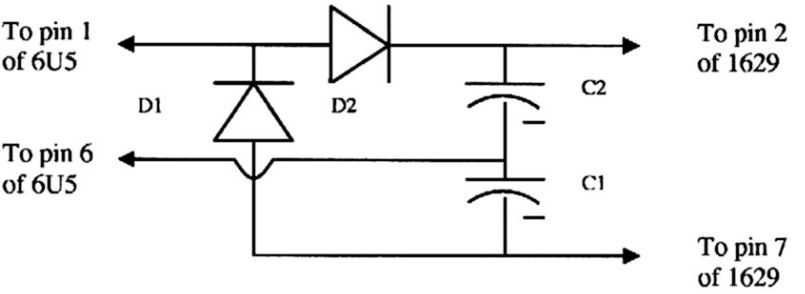
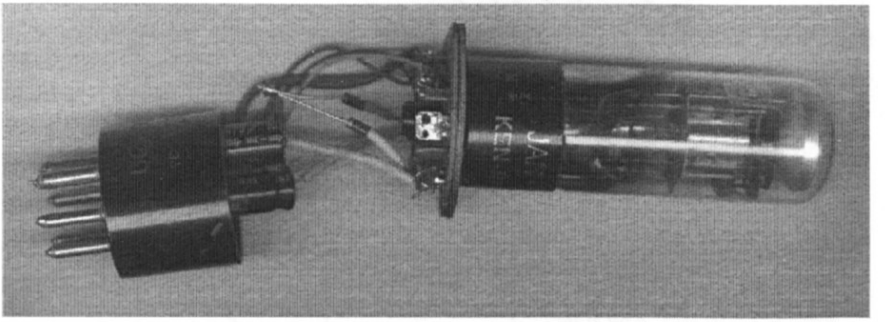
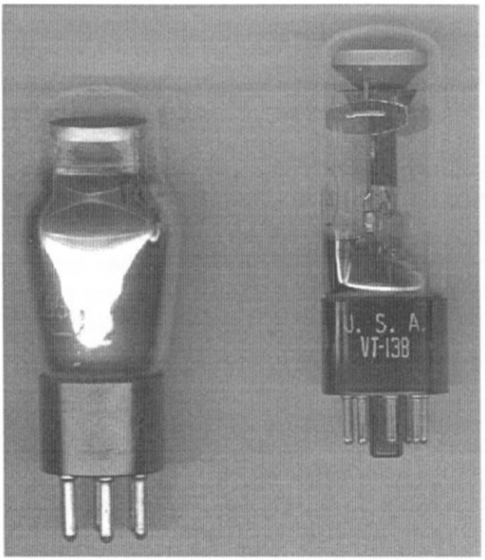


PLATE 3
TA 4
GRID 5
CATH. 8
2
7
HEATER

1629


To pin 1
of 6U5
D1
D2
C2
To pin 2
of 1629
To pin 6
of 6U5
C1
To pin 7
of 1629





6U5 1629

In conclusion, I was able to replace the 6U5 with a 1629 in my Continental 6W without performing any modifications to the chassis and the 1629 works great!

Ed Dupart

THOSE ANALOG METERS

By Bill Arnold
Washington, Indiana

Those of you that do your own repair work know just how important good test equipment is to the troubleshooting phase of radio repair. If nothing else, there are continuity checks one must make to verify that everything is hooked up as it should be.

Some insist that the only way to really test your old radio is to invest in a VTVM. (vacuum tube volt meter). I do agree they are wonderful but they must be plugged into the bench and warmed up to operate properly. I suppose that is fine if you have the bench on all day long but there are drawbacks to those as well.

If you are not using an isolation transformer and are working on an AC DC set there is the possibility of learning the hard way that there may exist a shock hazard

if you touch the chassis. There also may be a voltage potential from the probe of the test meter to the chassis. I suppose if you are on voltage it isn't that big of a deal but if you are trying to measure resistance, there could be a big problem even with the set off. You may ruin the meter by introducing voltage to the resistance circuits.

It therefore seems much more reasonable to use a battery powered meter to check your old radio. I prefer the old standby, the Simpson analog meter. There are several styles but generally they are all just about the same. I regularly use a Simpson 260 although the 270s work just fine. They are solid state and you can take them anywhere since they use batteries. They are getting some age on them now as mine was made in the 60s. It is one of the old bakelite cases. It will even withstand some abuse although it will not tolerate dropping on a concrete floor.

These analog meters are essential for quick checking voltages while the modern digital meters take too long to settle out to get a steady reading. Also if you are trying to align the IF transformers, you just will not be able to do it with a digital meter. The digital is more accurate but you are not concerned with that as much as you are the fact that you can peak those adjustments with the analog meter.

Even a cheap analog meter will work better for radio repair that the digital. It is faster and you can tell at a glance if you are reading voltage on a certain place. In fact, the only time I use my digital meter is to verify capacitor and resistor values when I require the needed accuracy.

I always seem to have analog meters for sale but they don't sell well and they don't bring good prices. I don't know why this is but it may be that the older guys already have them and the younger collectors want digital meters. Most of the analog meters go for between $10.00 and $30.00. I would think any collector would need one at that price. I know I couldn't get by without my old reliable Simpson 260 analog meter. Bill Arnold

THE EMERSON MODEL 31

By Bill Arnold
Washington, Indiana

I am always looking for "new" radios for my collection or to put in my assortment of stuff that I have for sale. I like have a variety of items of all different ages and sometimes conditions. Of course, I mostly have restored radio. This is because some of them that I get are not exactly in mint condition. After all, I have to buy them when I can and in the condition that I can afford.

As a result, I am constantly searching for suitable radios and end up picking them up at various places. I don't really like auctions because of the time involved to get

them. I find I usually have to stay all day just to get a few items and when I do get to bid, there are other people with the same idea and who want whatever I want more than I do.

My main goal is not to make as much money as I possibly can off just one radio but to sell enough to make the hobby pay for itself. That never works out because I am still adding to my collection and considering expenses, I wonder if I break even at times.

In my quest for radios, I go to flea markets, antique shops, antique shows and radio shows. If I can find a radio at a good price that is restorable, it gives me another radio to sell and keeps me occupied for a while since most of what I buy need some work. It is a constant learning process for me as I do not have the experience that most of the older guys have that grew up with the radio.

This leads me to buy practically anything in just about any condition in order to gain some more experience. This means that even if the radio needs cabinet work and it is not complete, I still get it if I think I can fix it. If I think it is a parts radio, it has to be cheap because I would rather not buy those. I have enough stuff sitting around.

My latest find was a white painted Emerson that I thought would make a good one when restored. Of course, I knew it would have to be re-finished but I have done some of those that were painted in the past and this is nothing new to me. Sure, it was going to be a lot of work to get it to look nice but I was hoping it would make a nice one if I could just get that paint off and get it to work.

As it turned out, it was really in worse condition than I had original thought because under close inspection, I noticed the dials were not in good shape. The tuner dial had a hole in it and the lettering was worn off both it and the volume control dial. At that time, I didn't know if they were available but I needed to get it working and worry about that later.

I also needed to see what I had to do to repair it. It did have some problems that could be easily seen. It was missing the speaker which was not apparent until I pulled the chassis out of the case. Also, when I plugged it in, the tubes didn't light. After some checking I discovered one tube had an open filament and another checked totally dead. I ended up replacing two tubes, dial lights, speaker, all of the capacitors. By then it worked pretty well. I also did some final adjustments to make sure the trimmers were just right and the radio performed as it should.

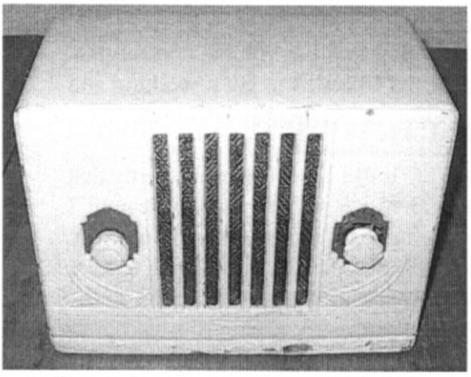
As for the cosmetic restoration, I didn't know exactly what model this was but by going through my files, I found the perfect match on the dials and ordered them. It took about three hours but the white paint finally came off. The front is not carved

wood but pressed wood and I wanted to be extra careful with the striper in case it was going to damage the panel. Luckily, there was no damage but I wasn't sure to start with. It finally cleaned up and I stained it with walnut stain. When it was dry, I gave it a coat of clear. I like to spray on the finish to make it look as it did when it was new. A thick coat of sealer or varnish does not look right.

In my research I found out it is a Model 31 made in 1934. It is a five tube mantle set. It takes a long wire antenna to make it perform well. It is an AC-DC set and it has series strung tubes with no transformer. It pretty much has standard tube lineup for the age of the radio and I have worked on several that are designed just about like it. I really didn't see much that I would consider unusual. I had a good schematic and found the problems right away. After all, it doesn't take a genius to realize a speaker was missing.

It was quite a bit of work to fix it with all of the problems but I had never seen one quite like it. It finished up nicely and is a good radio now. I played it for several hours to make sure I had all of the problems fixed and to make sure it will be reliable.

I do like to think I have helped preserve my fair share of radios. It is one reason I stay in the hobby. I like to fix them up. While it is great to find them in perfect shape, most of mine start out as radios that need a good restoration. If I can restore them, it makes me feel good to know that I have saved one more old radio. I would hate to think that the radio that I just restored could have been used for parts or even been thrown away. I always enjoy bringing one of these back to life and I hope you have enjoyed hearing about the Emerson radio. Bill Arnold



Before and After

THE QUESTION: WHAT THE HECK IS AN "8-IN-LINE" RADIO? THE ANSWER: A "PIRATE" SUPERHETRODYNE!

Herman Gross

Well.....some of us didn't know that.....at least me! There was a neat radio on display at the 2003 Spring meet in Kokomo called an "8-in-line". I looked at the front panel but didn't take time to investigate further. That "8-in-line" "handle" has bugged me ever since. It conjured up in my mind a string of 8 tubes in the usual TRF circuits popular in the 1920s. I've been sorry I didn't ask questions when I saw the radio. But, as I surfed the internet recently I ran across an interesting article that immediately caught my eye entitled *"8-in-line", Codename for Superhet?* written by Wayne Gilbert of the Colorado Radio Collectors club. It was first published in the CRC bulletin "Flash".

I originally wanted to just take a few excerpts from Mr. Gilbert's article but it is so interesting and comprehensive that I decided to just copy it in it's entirety here. Thanks to Mr. Gilbert for authorization to use his material and for answering my question "What the heck is an '8-in-line' radio".

"8-in-line", Codename for Superhet?

by Wayne Gilbert

Did your father or grandfather knowingly commit a crime? It's likely he did if he bought a superheterodyne radio between 1924 and 1930 from anyone other than RCA. It's also likely that both he and the seller knew they were skirting the law.

There were a few legal superhets sold under RCA patent licenses during these years, but it appears that far more "pirate" sets were sold than most collectors realize. Magazine articles, and even books, have been written about RCA's refusal to license its superhet patent and its diligence in prosecuting anyone with the audacity to defy them. So why did so many people risk so much and expend so much effort to own a superhet radio? A quick review of radio's history provides some insight into the mind set of the average radio customer of the 1920s.

Broadcast radio's history can be said to have begun with the licensing of KDKA in 1920. Radio "sets" led the way, but as radio circuits became more complicated, the components and connection wiring were gathered into one cabinet. Regenerative circuits were added to increase sensitivity, TRF sets were

"Neutrodyned" to cut the squeals, and finally the superheterodyne set replaced them all, in a space of only a few years.

WW-I had forced large and small radio manufacturers to work together, but the war's end brought about the consolidation of several radio companies into one large conglomerate. By 1924 RCA, the patent-holding arm of the conglomerate, had sown up patents on most new radio technology, including the superheterodyne circuit. This left the smaller radio manufacturer with designs what were yesterday's leftovers.

The superheterodyne radio circuit that RCA patented, and others coveted, utilized a circuit that was originally designed and patented by Edwin Armstrong. This patent was then sold to RCA. Any set utilizing that circuit design had to pay a royalty of up to 7% to RCA, who was not at all shy about demanding that payment. The catch was that RCA was very, very reluctant to license radio manufacturers to build these sets.

RCA not only controlled radio production with their patents, they also effectively controlled the price of radio sets as well. A good example is the Brunswick-Balke-Collender company, who had somehow obtained a license to produce a superhet radio. Their model 5NC8 cost $375, while their deluxe superhet model 148 sold for $995. As expensive as these sets were, they were priced comparably to RCA's models of the same period.

These high prices looked very tempting to the small manufacturer who could easily produce and profitably sell an 8 tube superhet for less than $200. The huge price tag of the licensed radio also looked very formidable to the average consumer, who made about $1500 per year.

At first, the small radio manufacturers resorted to various ploys to circumvent the superheterodyne and its advantages. One way was to 'soup up' the old standard TRF and neutrodyne circuits. Unfortunately, as more stages were added to these radios, the complexities of operating the radio increased. Various schemes were devised to simplify operation, with pulleys and belts ganging tuning caps together, and when this proved to be kludgey, others designed totally new units to be added as front ends for existing sets.

Unfortunately for the small manufacturers, the buying public had changed from being the radio nerds of the wireless era to being the Sheiks and Flappers of the Roaring 20s. The public wanted to play their radios, not play with their radios. Buyer's resentment grew as more of the public learned there was a better set to be had, if only RCA would loosen it monopolistic control of the patents. The scene was set for a buyer's revolt, and there was a way to beat the system.

There was a legal loop hole, and many small manufacturers jumped through it with little hesitation. Superhets could be legally produced and sold as kits, and very soon the 'kit' came to mean different things to different people.

Some manufacturers, like AK, sold kits that were basically boxes of components. They let the purchaser assemble the radio from scratch. Others, like Boulderadio, assembled the components and housed them in a sealed unit. These sealed units required little more than the connection of an antenna, a speaker and power. They could easily be ready to play within an hour after their purchase.

Such sealed kits also had the advantage of giving consistent successful results and quickly became very popular to a growing number of customers who had little knowledge of radio technology. These sets were often identified as an "8-in-line", due to their tube count, and the buying public soon realized that when they saw the advertisement for an 8-in-line kit, they were seeing an advertisement for a superhet radio kit which performed as well as a much more expensive RCA licensed radio.

Soon, the 8-in-line units (kits?) were being produced by several other small, or not too scrupulous, radio companies across the country. Some others simply marketed the Boulderadio 8-in-line as though it were their own product. All seemed to have one objective: cash in on the superhet's popularity, and if possible, don't pay RCA's licensing fees. The buying public rewarded their efforts, apparently deciding the definition of a kit could be expanded to cover these sets, and undoubtedly, many buyers justified their actions as a protest against RCA's licensing policy.

RCA still had one more card to play in this high stakes game. By law, RCA had to sell replacement tubes for existing legal sets and tubes to amateur radio operators, but did not have to supply any extra tubes that could be sold to pirate manufacturers. First, they dropped any distributor who sold only tubes, then they implemented a policy of requiring an old tube for every new tube sold as a replacement.

Ironically this policy hurt both the small manufacturers and RCA. Boulderadio, like most of the others, didn't last long when it came to a fight with RCA. Most of these small manufacturers simply produced and sold radios until they were caught and either paid up, or folded up, to reopen under a new name. But there were just too many of these small companies, and some sought help from their congressmen.

Congress finally became concerned with the absolute control exerted by RCA and their parent conglomerate and implemented new laws to regulate the radio

industry. By 1930 the courts had ruled against the big conglomerate and RCA began to license its superheterodyne patents. With that, the 8-in-line kit radio era ended and a new age for radio began. Wayne Gilbert

RADIOADS

These ads are free to IHRS members. Please limit them to 100 words. Unless we are advised otherwise, we will run ads for two issues. The exception would be where services, etc. are being listed. Please send your ads to the editor at the address shown on page 2.

I'm also offering a postage size picture ad service. It's not guaranteed, but if space permits, I will put it with your ad.

For Sale: Photocopies: Manuals for B&K E-200D Sig. Gen, Radiola III, IIIA, 17, 18,25, 60, 100, 100A & 103 and other paper, some original. LSASE or email for list. **Wanted:** Spkr/ OP x'fmr assembly for RCA 5T1. Herman Gross, 1705 Gordon Drive, Kokomo, IN 46902 765-459-8308 Email: w9itt@mindspring.com

For Sale: 2 brand new solid state Bogen 35w PA amplifiers in the box, $250 ea. 1 used 100w solid state Bogen PA amp, $200. 1 brand new solid state Radio Shack 20 w portable 12v/120v PA amp, $75. 1 used solid state Radio Shack 20 w portable 12v/120v PA amp, $50. Other misc. solid state amps, call. Brand new Electro Voice microphones, call. Outdoor PA speakers, some new, call. Used resistors, pots and capacitors, some dating back to the 30's, call. Loren Willis, Box 282 301 S. Plum, Farmland, IN 47340 765-468-8501

Wanted: 21EP4 picture tube - prefer Zenith or Rauland but will take what you have with non scratched face and good emission. State condition and price. Ship or I can pick up. John Foell, 6130 Deer Track Cove, Auburn, IN 46706-9323. (260)-627-0127 evenings, (260)-429-8202-days. Email to John_D_Foell@raytheon.com [12-03]

Wanted: RCA 8T table model with a tuning eye and 3 bands. Can be rough. Ed Dupart 765-533-6272 e-mail: edupart3@hrtc.net

Wanted: Past issues to fill out my Popular Electronics collection -12/56, 4/57, 10/59, 11/59, 2/60, 3/60, 7/60, 10/60, 4-7/61, 9-11/61, 2/63, 4/63, 4/64, 8/64, 10/64, 12/64. Also, I'm looking to find any issues in the late 60's and early 70's that included John T. Frye's story "Mac's Service Shop." I have some already, but I don't know when it started or ended. The 6/71issue of "Electronics World" are also on my "Must Find" list. Dave Mantor, PO Box 1, Fairmount, IN 46928-0001. merrijoy@comteck.com [9-03]

Wanted: R.F. choke, Zenith part 20-135, for Zenith chassis 1204, as shown in Rider 8—41. Richard Ender, 806 Lee St., Milan, MI 48160. (734) 439-2545

For Sale: Now Available: A replacement for the UV99, our V999R replaces your UV99, our V999 operates the filament on 1.5 VDC. Both use a 5676 proximity fuse, subminiature tube. Our price: $15.00 plus first class shipping. James Fred, 5355 S. 275W, Cutler. IN, 46920, phone (765) 268-2214.

For Sale/Trade: See our new website for beautifully restored radios. Choose from deco tabletop models to gorgeous consoles. Always open to reasonable offers. Check us out at: www.tubularradio.com Actively collecting Zenith and other high-end 30's wooden sets. Bob Snively, Richmond, Indiana
Phone; (765) 935-3746 E-mail; totallytubular@aol.com

Wanted: Any information about Marconi No. 3574 receiver (made by "MWTC, Ltd. London") using carborundum, valve, and perikon detectors. Needed for restoration project. George B. Clemans, 851 West Wooster St., Bowling Green, OH 43402. (419) 352-7198, clemans@bgnet.bgsu.edu.
For Sale: Philips Radio tube books. I am currently reducing my stocks of my book "Illustrated History of Philips Radio Valves to 1935" and am offering signed copies to fellow IHRS members for $10 cash including air mail postage. Please reply to Fin Stewart, "Cockerdale", 380 Bulga Rd, Wingham, N.S,W. 2429, Australia.. email address cockerdale@bigpond.com

FOR SALE: Reproduction Philco cathedral cabinet parts and reproduction cabinets for model 20, 21,70, 90. Grandfather clock finials: Philco 570, GE H-91, Crosley 124. Philco Colonial Clock top trim and finials. Rider's Radio Index, 1 through 23 -$20.00 ppd. Books, SASE for list. All plus shipping. Philco cabinets, front panels, see page 22 in Volume 29, #4 the Winter edition. Other parts, inquire. Call or e-mail for details. Note new phone # and address. Dick Oliver c/o Antique Radio Service, 1725 Juniper Place, #3 10, Goshen IN 46526. New phone # (574) 537-3747, e-mail dolivears@aol.com

Wanted: Philco 512 Mandarin Red radio w/212 Red speaker or 514 Nile Green radio with 214 Green speaker or 513 Labrador Grey metal radio with 213 matching grey speaker. I prefer the Red model.
Bob O'Friel, 7631 Cape Cod Circle, Indianapolis, IN 46250-1844 Phone,
(317) 849.4028

Interested in TV history? Want to see how it started? Try this Web site. You'll be amazed how far we've come.
http://pyanczer.home.mindspring.com/Tour Note: all lower case except the upper case "T" in tour.
Pete Yanczer, 635 Bricken Place, Warson Woods, MO 63122-1613

FOR SALE: Federal Book: Limited supply again available. 64 page booklet describes Federal Tel. & Tel. Radio-from the beginning in 1921 to the end in 1929. Over 60 illustrations including pictures of early Federal RF and audio amplifiers as well as all early radios. Many federal parts are pictured and described. The article and speech by Dick Scramberger, the Federal expert, are included. All Federal models are listed with the year and month introduced, cost new, and description. The Federal Broadcast station, WGR first in Buffalo is included. There are two pages of references for more Federal information. This booklet contains more Federal information than exists in any other single spot. Good Quality printing. Please send $7.95 (Including S&H) to Larry Babcock, 8095 Centre Lane, East Amherst, N.Y. 14051

Wanted: MYSTERY SCOPE Any information will be appreciated on a 5-inch 'scope made by Television Equipment Corp, of NYC, model TEC601. This unit is heavy and very well constructed. It appears to be of early 50's vintage (octals and miniatures) and was intended for TV servicing. This is a candidate for a possible fun restoration project.
Harold E. (Hal) Hunt 1209 Canterbury Dr Decatur In 46733 260-724-9700 (leave message) hehunt@adamswells.com

Wanted: Whitley Electronics Murasonde Amplifier, built in Columbia City Indiana in the late 50's early 60's. Also need a large potentiometer (2 1/2 inch diam) used for filament control in early battery receivers (1922.) Knob (1 3/8 inch diam) and brass shaft (½ inch diam). The knob is same as a trimmer control on a Westinghouse RADA.
Fred Prohl (812) 988-1761 email fprohl@att.net

Wanted: I am wondering if any one has a power transformer that can be used in a Grebe—Garod 511. The original unit is mounted above and through the chassis with horizontal laminations (4—1/2" by 3—7/8"). The following specifications are required: ***Primary*** 120VAC, 60CY ***Secondaries*** 860VC1 (approx.) to deliver 430VDC to the filter at 150 MA, 5VAC at 3A ---(5Z3), 2.5VAC at 3A --(two 45's), 6.3VAC at 3A -- (nine 0.3A heaters) Also **Wanted**: I wonder, does anyone have any information on a Thordarson power transformer with the nameplate model No of 5604?. It is a vertical mount, and has HV, 5V and 2.5V secondaries. By "heft", I would guess it is good for about 100VA. This is an older unit, and I believe its revised Model No would be 56R04. Thanks, Harold H. Hunt hehunt@adamswells.com [12-03]

Wanted: Wood cabinet for Atwater Kent Model 33 receiver.
Ray Andrejasich (317) 846-6977.

FOR SALE: Photocopies: Hallicrafters 8-22, Zenith 1000-1, Radiola III, 18, 60, 100A, 103, Majestic 52, and other radio, tube, and Test Equipment manuals. Also some Novelty radios. LSASE for list. N.I.B. Western Electric 421A-$55 postpaid. **WANTED:** Speaker/output xfmr. assembly for RCA 5T1. Herman Gross, 1705 Gordon Dr. Kokomo, IN 46902. (765) 459-8308, e-mail = w9itt@mindspring.com

Wanted: Philco parts chassis model 95 or 96. Must have good wirewound resistors. Colin Slease 4906 Sunny Ln. Valporaiso, IN 46383, e-mail: Colli@webtu.net

Saving a Sawed-Off Grebe CR-9 was originally published in the June 2001 issue of Radio Age. Radio Age is the official publication for the Mid-Atlantic Antique Radio Club. Permission was given to IHRS to reprint the article. Of special interest is the seller of the ½ CR-9 was IHRS member Walt Sanders.

Saving a Sawed-Off Grebe CR-9

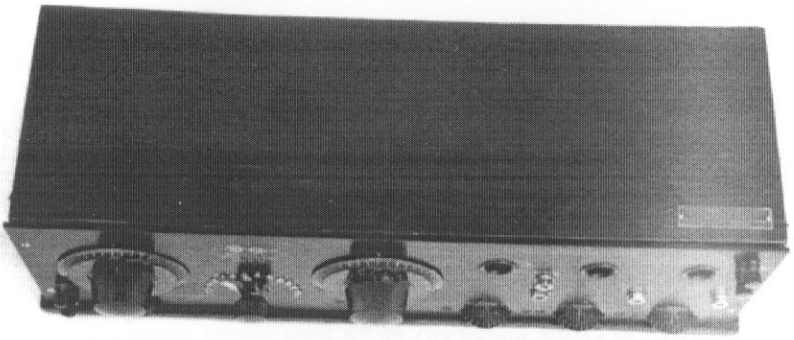
By Charles Mooney

Not along ago I came across an ad for a Grebe CR-9 for sale as a parts set. Knowing how hard it is to find 1920's Grebe sets in any condition, I bought it in the hope that I could restore this receiver.

As explained by the seller, some years back a ham wanted the tuner section to use with other equipment, so he sawed the front panel and cabinet through, with the tuner intact. (Ouch!) I received the tuner section complete, and the seller also provided a complete front panel and a couple of other parts. The missing parts included a full sized cabinet, both audios, one filament resistor, external detector jack, and new wiring (as well as three 01A tubes).

I finally located or made from scratch all the parts I needed to reassemble the receiver. Now that is is complete, my work seems all worth while, and the "new" Grebe is a treasured addition to my collection of radios from another time and place.

Thanks to everyone who contributed to this restoration project. (The following people helped me find parts or provided information I needed for the restoration: Joe Koester, Gary Carter, Dave Crocker, Wally Worth, Gary Schneider, Don Patterson, Bill Hurni, Joseph Forth, George Fathauer, and Ken Mellgren.)

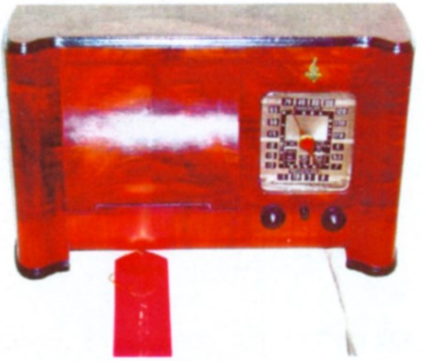


I still cannot understand why anyone would cut a 1922 Grebe CR-9 in half, but then people do strange things. Oh well, it is in good shape now, as shown in the illustration.

February 14, 2002 Winter Meet
Indianapolis, Indiana

The following photos and contest information are courtesy of Dr. Ed Taylor. My thanks to him for all the info and pictures he has provided me. Unfortunately, I didn't make this meet due to prior commitments, but I heard there were some interesting radios there and the contest entries looked to be of high quality. There were two contest categories, Radio I received as a gift and AC/DC Table Radio.

The registration table-Our thanks to those who help make a meet possible.



AC/DC Table Radio

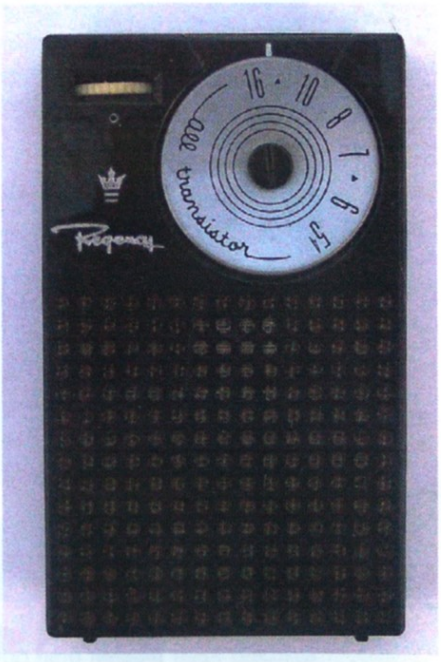
1st place Jeff Emmick-Zenith 2nd place Peter Konshak-Emerson

Radio I received as a gift

1st place Greg Armstrong-Majestic 2nd place steve Starr-philco

Bob O'Friel looking over some interesting radios.

Regency XR-2A
A two transistor reflex radio for earphone only.



Regency TR-4

A four transistor 9 volt version of the TR-1 and TR-1G