

# The Colorado Radio Collectors Antique Radio Club

# FLASH!

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*In this issue...*

- ◆ CRC Annual Auction Report ◆ Clock Radios Revisited ◆
- ◆ Re-Magnetizing Iron Vane Speaker Magnets ◆ Book Specials for Members ◆

## ABOUT THE COVER

Even the gods in the museum court yard mural seem to be looking favorably on the CRC 2001 annual auction. And what an auction; good sale items, excellent and shaded facilities, nice turnout and wonderful weather. Read all about it on page 9.

## The Colorado Radio Collectors Antique Radio Club

**Meetings:** Unless otherwise noted in this journal, regular meetings are held on the second Sunday of every other month starting with January (except: 3rd Sunday of May) at 1:00PM at the Museum of the Americas Bldg, 2nd floor. 863 Santa Fe. (between 8th & 9th Ave's). The meeting normally includes business items, discussions, "show and tell", a raffle and a swap meet.

**Membership:** All dues are \$12.00 annually. Joining dues are prorated to June 1st. Send dues and membership inquiries to the CRC Treasurer, Robert Baumann, 1985 S. Cape Way, Lakewood CO 80227, (303)988-2089, RGBdenver@att.net

**Article Contributions:** Submission of articles are always appreciated. This would include historical and technical items as well as stories about individual collections. Articles may be written or e-mailed, and need not be in final form. Submissions and requests for information should be directed to the CRC "Flash!" Publisher,

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**Want Ads:** Submission of Sell/Want ads are always free to CRC members. Non-members may advertise in the Flash! for \$0.20 a word.

**Publishing Deadlines:** All submissions must be submitted by the 1st of Feb, Apr, Jun, Aug, Oct and Dec. for publishing in the following months.

**Thanks** to the **Pressworks** for printing the Flash! - (303) 934-8600

Upcoming 2002 CRC Events  
Regular Meetings - January 13th, March 10th

# *Colorado Radio Collectors Antique Radio Club*

Dedicated to the Preservation and Education of  
Wireless, Radio, Television and Associated Equipment.

Volume 12, Issue 6

November/December 2001

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## ***“We’ve Only Just Begun”***

by Mark Dittmar, CRC President

Greetings from your new president.

First, I would like to take this opportunity to thank Tom Kelley for his tireless service as our club president for the last three years. I trust that Tom will enjoy his "retirement" from political office.

Another CRC auction has come and gone. I hope that all who attended found some good deals. The weather was great and the new location worked out just fine. There were many interesting items for auction which are listed elsewhere in this issue of the FLASH. I'd like to thank all who helped out with organizing and running the auction (everyone knows who you are) and a special thanks to Mike McCutcheon for working with the museum staff to let us use the place for the event.

I'll see you at the meeting, and don't forget to bring in something neat from your radio collection for the show-and-tell.

Mark

# Clock Radios Revisited

## Or

### Pre-WW II Clock Radios

by Wayne Gilbert, CRC Member

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First, let's have some fun with anagrams and quizzes;

Q: Rearrange the phrase "Snooze Alarms" into a meaningful sentence.

A: Of course it's,  
**Alas! No More Z's**

Q: OK, now who made the first First Clock Radio?

A: When you manipulate the facts it was, **Telechron**

\*\*\*\*

Well, one objective of the above quiz is to point out that a sure fire way to bring readers out of the woodwork is to write about someone who claims to be 'the first', or even 'the best' at anything. There is always some reader who believes there was some other company or person with a legitimate claim to be 'more firster' or 'more better'. The article about Telechron's claim to have beaten GE with the production of a *post WW II* clock radio had its share of people

pointing out their candidates for 'more firsters'. Overlooked by some was that the article was specifically discussing Telechron and GE's radios and their *post WW II* maneuvering to be the first on the market with a *bedside* clock radio. This maneuvering to be first or best may have boosted product sales, but it doesn't enhance Telechron's credibility. For example, take their engineers' claims to have gotten their inspiration to design and build a clock radio from Telechron's work on radio timers during WWII. While Telechron is acknowledged to have been a very reputable clock manufacturer, this explanation for their inspiration illustrates how little they knew about radios or at least how little they communicated with their parent company, General Electric. GE's radio engineers would surely have realized that different combinations of clocks and radios had been conceived years earlier.

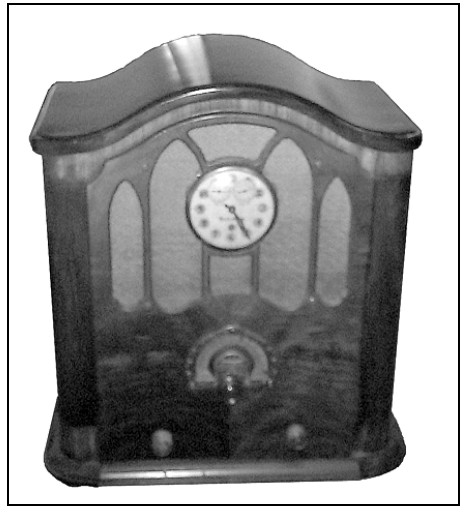
It would be very hazardous to guess who was first to *design* a

clock radio, but it is reasonable to believe that the *idea* for a clock radio was conceived by someone building and/or modifying his own homebrew radio. As for the first production clock radio, it's possible that Majestic could be one of the first since they reportedly had clock radio patents as early as the mid-1920s.

But before going further, it should be noted that there are/were clocks built into radio cases, radios built into clock cases, clocks that would switch other appliances (radios?) off and on at preset times, and clocks that controlled both the time *and* station its radio was tuned to. And there were probably other variations as well, and all referred to by someone as a 'clock radio.'

A good example of radios being built into a clock case was Emerson's four tube radio that was squeezed into an E. Ingraham clock cabinet. This strange hybrid of technologies was on the market by 1925 and sold for \$25. The number sold is not known, but it doesn't seem to have been anything more than what we today would term a novelty radio.

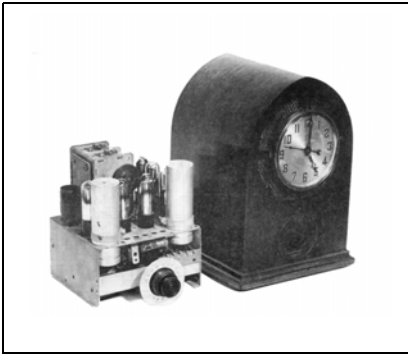
Bulova claims to have 'invented' the first clock radio in 1928. They wisely don't claim to have marketed their invention at that time. Records show these sets were prototypes that were distributed to their dealers. The



intent was to introduce their dealers to the clock-with-radio concept so they could better sell Bulova's new clock-radio when it became available to market. Bulova continued to work on the idea, at one point working with the Radio Products Company, trying to find a combination of small tubes and components with which to make a small radio that could fit into one of their cabinets.

Bulova (like others in this period) found that their best success came when they put their clock radio into a cathedral or a console radio cabinet. These cabinets were large enough to contain a radio made with standard sized components, and still had room for a sophisticated control clock movement. By 1932 Bulova was marketing at least four of these

models, the most popular being the M701. However, there was not sufficient demand to allow Bulova to capitalize on its marketing advantage with any significant line of additional models. Bulova's mainstay was clocks, and judging from the number of Bulova radios listed in radio-collecting books, they went back to producing what they did best -- clocks -- at least until transistor radios revolutionized the market.



Radio Products Company didn't have Bulova's resources and when Bulova's interest in clock radios waned, RPCo's story was not so rosy. They, too, had begun manufacturing a clock radio independently of Bulova, but when their clock radio also suffered from low buyer interest they had to close up their operations. By 1934 Radio Products Company appears to have closed their doors completely.

One of Majestic's early radios included a Hammond clock

movement that could be programmed to switch the radio on and off every 15 minutes, while tuning the radio to one of four preselected stations. For operator simplicity, Majestic referred to these preset stations as Red, Yellow, Brown, and Black, leaving the user to associate these color designations to a real station broadcasting in his area.

Several other manufacturers marketed some version of a clock-radio, or radio-clock by that time. Some of these sets were simply a clock and radio combination with no interconnecting features, but others were quite sophisticated. Some utilized small setting dials and others utilized an arrangement of time control pegs or pins arranged around a clock face. Others, besides Majestic, also had models capable of not only switching a radio off and on, but could select the station as well.

While a few of these clock radios continued to be manufactured and sold through the 1930s and early 1940s, there was never a big demand for a large table top or console clock radio. What was required was for someone to design a small bedside table version, primarily to be used to replace the annoying clock alarm

buzz with the sweet strains of popular music. Telechron and GE did this in 1945 and the rest is history, or maybe more appropriately, alas, no more Zzzz's



**Silvertone model 112, 1930  
clock controlled turn on/off and  
pre-set station tuning**

### **Sources:**

Photo of Bulova model M701  
provided by Ray Kushnir, Radio  
Collector & CRC member

Brooks, Leamon. Radio Collector  
& CRC member. Personal  
interview May-June 2001.

Bulova Web Page.

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Douglas, Alan. Author and radio  
history expert. Email  
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Collector & former President  
CRC. Personal interview  
May-June 2001.

Kushnir, Ray. Radio Collector &  
CRC member. Personal interview  
May-June 2001.

Tynan, Jerry. Radio Collector &  
CRC member. Personal interview  
May-June 2001.

Weide, Larry. Radio Collector &  
CRC member. Personal interview  
May-June 2001, and photo of  
Silvertone model 112



# It's been a great six years!

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Fellow CRC club members,

For the last six years I've been the publisher of our newsletter, the Flash. However, times and situations change. Consequently, for various reasons, I find that I can no longer give this position the attention that it needs and deserves. Regrettably, this month's issue of the Flash will be my last as the publisher.

For all the work I have put into this job I'm still very aware that I could not have done it alone. I owe a lot to all those folks who provided stories, pictures and most importantly those that took the time to write and submit their own articles. There are many to thank, but those who particularly come to mind, each of who provided me with many fine personally written articles, are; Wayne Gilbert, Mark Dittmar, Dave Boyle and Ed Brady.

I particularly want to thank Richard Beckman for graciously taking on the job of picking up the Flash from the printer and doing all the labeling, sealing, stamping and mailing. All of you folks really add a touch of class to this newsletter - and I thank you so very much.

Finally, I want to extend my whole hearted support to your next publisher to help make the transition as smooth as possible.

Thank you all for your support and encouragement. It has been a great six years.

“30”

Larry

# Olde Tyme Radio Humor



MERRILL SHUDDERS EVERY TIME HE THINKS OF IT



RADIO NEWS - July, 1922

# The CRC 2001 Annual Auction Results

by Larry Weide, CRC Member

This year we held the CRC annual auction in the court yard of the Museo de las Americas - Denver's primer Mexican/American museum. Of course this is also our regular semi-monthly meeting location. A little over \$3,000 changed hands with many affordable items being placed on the "block".

A lot of folks helped to make the our auction a success. This included Jerry Tynan, Mark Gibson, Bruce Young and our excellent auctioneer Jim Berleson. But I want to particularly thank Robert Baumann and Mike McCutcheon. Both of them were involved in a lot of pre auction planning. Robert did yeoman duty as our treasurer and provider of the soft drinks. Mike not only is our liaison with the museum, which makes it possible for us to have our meetings there in the first place, but he also managed the facility and saw to it that we had the use of museum tables, chairs, power and his own personal 12x16 shade tent. Thank you all for a great effort!

<b>Lot Description</b>	<b>Min Bid</b>	<b>Hammer Price</b>
Airline 15-GHM-1070A, 1951	10	15
Airline Portable		15
Antique Radio Classified Magazines		25
Antique Earphones	6	12
Atwater Kent 40 1926		60
Atwater Kent E Speaker		40
Atwater Kent M Horn Speaker		20
Battery Eliminator		15
Belmonts 777 Tombstone		135
Box of knobs		30
Box of Tubes #1		45
Box of Tubes #2		85
Box of Tubes #3		55
Brunswick Windup Record Player	35	65
Cookie Jar Radio - Novelty		22.50
Crosley "Moderne" Console 1934		65
Crosley 526 Tombstone, mid 30's	15	65

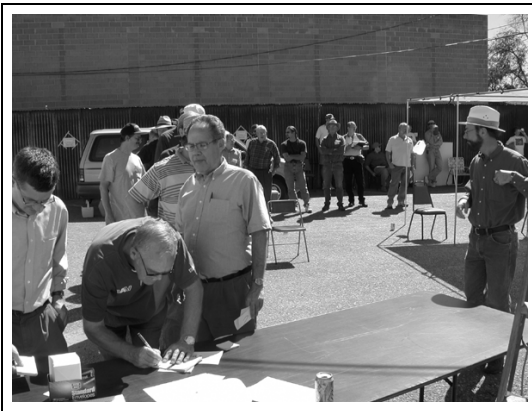
(List continues on page 12)

# The CRC 2001



Mark Gibson, Jerry Tynan and Bruce Young (l to r) listen intently to make sure that Jim Burleson, our auctioneer, doesn't say something to anger that guy in the mural - for goodness sakes.

Bruce Young, Mark Gibson and Jerry Tynan (l to r) did a superb job of keeping the action moving and making sure everyone had a good view of all the items.



Ray Kurshnir (pencil in pocket and paper in hand) and Tom Pouliot (hat) wait their turns to register as auction bidders.

# Annual Auction

Mark Dittmar, our new CRC President (dark shirt), sits waiting to spring into action and be high bidder on some great deals.



Steve Touzalin (white shirt) puts his finely honed auction bidder's technique to work by pretending not to be interested in the action.

Mark Gibson revs up the crowd's interest by showing them all views of a very nice tombstone radio.



<b>Lot Description</b>	<b>Min Bid</b>	<b>Hammer Price</b>
Crosley 52SD 1924	40	120
Electrovoice 12TRXB - two speakers		45
Eveready 3		25
Four clock radios - group 1		7.50
Four clock radios - group 2		10
Function Generator		15
Gonset Communicator III		40
Hal ST6 Radio Teletype Decoder		5
Hallicrafters Sky Buddy 1936		60
Hallicrafters 8R40		60
Hallicrafters Portable Communication Receiver	25	85
Hallicrafters S-38		30
Hallicrafters S-38		35
Hallicrafters S-81		10 (Buy Back)
Hallicrafters S-402		7.50
Heathkit Tube Tester		25
Kikusui 0-8Volt 5Amp Power Supply	60	No Sale
Macintosh 1900		30
Mantola	10	30
Meizner Kit Radio		20
Metal Detector		15
Midland Table Radio	18	37.50
Misc. Clocks		5
Misc. Plastic Radios - #1		10
Misc. Plastic Radios - #2		7.50
Misc. Plastic Radios - #3		5
Misc. Radios		35
Misc. Radios #1		25
Misc. Radios #2		40
Misc. Tube Shields		20
Motorola 55B1 portable, 1955	10	10
Paragon RA-10 Tuner 1920	700	No Sale
Philco 42-350 Wood Table	28	75
Philco 66	125	No Sale
Philco 80 Jr.	115	250
Philco 89 Cathedral	47.50	50
Portland Portable AC/DC Television Set	15	20
Pyramid PR-8800 audio mixer		20
RCA 5T Tombstone		135
RCA 75X12 Plastic Radio		2.50
RCA Oscilloscope		5
RCA Portable Clock Radio		5
RCA Radilola 60		25

RCA Wooden Radio		20
Realistic Patrol Man 3		5
Rola 30 Self-Powered Speaker, late 20's	30	No Sale
Silvertone 4463, mid 30's	10	45
Silvertone L1863 Tombstone, 1935	35	80
Spool Hookup Wire - Antique	15	15
Stewart Warner 01-6G Wood Table Radio		50
Stewart Warner 12-4D Wood Table Radio		25
Superior 7.5Amp Variac		25 (Buy Back)
Telephone Novelty Tube Radio	20	No Sale
Telephone Reproduction		5
Textronix 422 Oscilloscope		90
Textronix 453 Oscilloscope w/probes	200	No Sale
Thermodyne TRF		105
Thompson Neutrodyne		30
Three Farm Radios - #1		30
Three Farm Radios - #2		20
Westinghouse Grandfather Clock (no clock)		60
Wood Table - Short wave		20
Zenith AM/FM Radio		5
Zenith chassis		30
Zenith L406 portable, 1953	10	25
Zenith Transoceanic 8GY500	75	170

# Collector Books for Sale

Special CRC prices. Order at club meetings. Mail order shipments: add \$1.75 postage for each book ordered. Info/order: Charles Brett, 5980 Old Ranch Road, Colorado Springs 80908, (719) 495-8660, brett3729@aol.com. *void all other listings*

	<u>Retail</u>	<u>Club</u>
<b>RADIOS, (GENUINE PLASTIC) OF THE MID CENTURY</b> Jupp & Pina, hard bound, 219 pgs, 1998 PG, 450+ color pics	\$39.95	\$28.00
<b>ANTIQUE RADIOS, COLLECTOR'S GUIDE - 4th EDITION</b> Bunis, 1997 values, revised & updated, new photos, 248 pgs	\$18.95	\$15.00
<b>GUIDE TO OLD RADIOS, POINTERS... - 2nd EDITION</b> Johnson, 277 pgs, 1995-96 prices	\$19.95	\$15.00
<b>ANTIQUE RADIO RESTORATION GUIDE - 2rd EDITION</b> Johnson, 144 pgs, repairing, refinishing, cleaning	\$14.95	\$12.00
<b>RADIO, EVOLUTION OF THE - VOLUME ONE</b> 227 pgs, 118 in color, More than 800 radios pictured, 1992	\$22.95	\$18.00
<b>RADIO, EVOLUTION OF THE - VOLUME TWO</b> 226 pgs, Radios of the 1920s to 1960s, with 93-94 values	\$24.95	\$19.00
<b>TRANSISTOR RADIOS, COLLECTOR'S GUIDE VOL II</b> Bunis, 1996 prices, Full Color	\$16.95	\$13.00
<b>ZENITH TRANSISTOR RADIOS, 1955-1965</b> Smith, 1998 PG, 160 pgs, 226 color pics, info, descr.	\$29.95	\$22.00
<b>THE ZENITH TRANS-OCEANIC (THE ROYALTY OF RADIOS)</b> Bryant and Cones, 160 pgs, 1995	\$29.95	\$22.00
<b>ZENITH RADIOS THE EARLY YEARS 1919-1936</b> , Cones 1997-98 Price Guide, 223 pgs, 100's Photos, Desc., Hist.	\$29.95	\$22.00
<b>RADIOS BY HALLICRAFTERS</b> , revised 2nd edition Dachis, 1999 values, 220 pgs, 1000+ pics, id's, history	\$29.95	\$22.00
<b>CLASSIC TV'S, PRE-WAR THRU 1950'S</b> 86 pgs, color & b/w pics, descriptions, etc.	\$18.95	\$15.00
<u>Machine Age to Jet Age</u> , Radiomania's Table Radio Guide 'III, 33-'62 Stein, 256 pgs, 100's of b/w photos	\$29.95	\$24.50
<b>TRANSISTOR RADIOS, 1954 TO 1969</b> Norman Smith, with prices, 160 pgs, 1000 photos, 1998	\$29.95	\$22.00
<b>PHILCO RADIO: 1928 - 1942</b> Ramires & Prosize, 160 pgs, 828 pics & drawings, 1993	\$29.95	\$22.00
<b>RADIO AND TV PREMIUMS</b> Jim Harmon, 256 pgs, 200+ photos, 1997	\$24.95	\$19.00
<b>RADIO MANUFACTURES OF THE 1920'S VOL I</b> Alan Douglas, 225 pgs, 1988	\$24.95	\$19.00



<b>RADIO MANUFACTURES OF THE 1920'S VOL II</b> Alan Douglas, 266 pgs, 1989	<b>\$29.95</b>	<b>\$22.00</b>
<b>RADIO MANUFACTURES OF THE 1920'S VOL III</b> Alan Douglas, 285 pgs, 1991	<b>\$29.95</b>	<b>\$22.00</b>
<b>CRYSTAL CLEAR VOL 1</b> Maurice Sievers, 282 Pgs, 1991	<b>\$29.95</b>	<b>\$22.00</b>
<b>CRYSTAL CLEAR VOL 2</b> Maurice Sievers, 252 Pgs, 1995	<b>\$29.95</b>	<b>\$22.00</b>
<b>RADIO TUBES AND BOXES OF THE 1920'S</b> George A Fathauer, 112 Pgs, 1999	<b>\$26.95</b>	<b>\$20.00</b>
<b>70 YEARS OF TUBES AND VALVES, 2ND EDITION</b> John Stokes, 264 Pgs, 1997	<b>\$29.95</b>	<b>\$22.00</b>
<b>RADIO DIAGRAM SOURCEBOOK</b> Richard Gray, 264 Pgs, 1996	<b>\$18.95</b>	<b>\$15.00</b>
<b>THE RADIO COLLECTOR'S DIRECTORY AND PRICE GUIDE, 2ND ED.</b> Robert Grinder, 524 Pgs, 1995	<b>\$26.95</b>	<b>\$21.00</b>
<b>COLLECTOR'S GUIDE TO VINTAGE TELEVISION</b> Durbal & Glenn Bubenheimer, 200 Pgs, 1999	<b>\$15.95</b>	<b>\$13.00</b>
<b>NOVELTY RADIOS, VOLUME 1</b> Marty Bunis & Robert Breed, 223 Pgs, 1995	<b>\$18.95</b>	<b>\$15.00</b>
<b>NOVELTY RADIOS, VOLUME 2</b> Mary Bunis & Robert Breed, 199 Pgs, 1999	<b>\$19.95</b>	<b>\$15.00</b>
<b>COMPLETE PRICE GUIDE TO ANTIQUE RADIOS: PRE-WAR CONSOLES</b> Mark Stein, 235 pgs, 100's of b/w photos	<b>\$29.95</b>	<b>\$22.00</b>
<b>TUBE TESTERS AND CLASSIC ELECTRONIC TEST GEAR</b> Alan Douglas, 166 Pgs, 2000	<b>\$25.95</b>	<b>\$19.50</b>
<b>RADIOS - THE GOLDEN AGE</b> Philip Collins, 119 Pgs, 1987	<b>-----</b>	<b>\$15.00</b>
<b>COLLECTOR'S VACUUM TUBE HANDBOOK, VOLUME I</b> Robert T. Millard, 196 Pgs, 2001	<b>\$25.95</b>	<b>\$19.50</b>
<b>THE PLATING MAN'S ELECTROPLATING MANUAL, 2ND EDITION</b> Don Culver, 38 pgs, 2000	<b>-----</b>	<b>\$10.00</b>
<b>TUBE DATA ON CD ROM</b> Holm, 27,000+ tubes, for Windows 95/98	<b>\$39.95</b>	<b>\$28.00</b>
<b>SILVERTONE ANTIQUE RADIOS 1930 - 1942</b> Stein, 239 pgs, 2001	<b>\$34.95</b>	<b>\$25.50</b>
<b>ANTIQUe RADIOS COLLECTOR'S GUIDE 5th EDITION</b> John Slusser, 264 Pgs, 2001	<b>\$19.95</b>	<b>\$15.00</b>

**\*\*\* Be sure to review new items in this listing \*\*\***

# Re-magnetizing Iron Vane Speaker Magnets

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[This somewhat edited article was originally presented in the November 1994 issue of the Flash. It was written by Larry Weide]

As many of you know, the early speakers, particularly the horn type, were really nothing more than re-fashioned earphones. That is, as with an earphone, there was a permanent magnet closely associated with a finely wound coil of wire. Adjacent to the magnet/coil assembly was a metal diaphragm. When voice and music signals passed through the coil they would induce a variance of the magnet's effect on the diaphragm causing the diaphragm to vibrate in time to the program material. These vibrations are what we then hear as sound. The main difference between an earphone and the horn speaker was, of course, the horn itself. It was designed and formed to focus the sound so that more than one person at a time could hear the radio.

There were a number of different types of assemblies used. Most of these were

derivations of what were called balanced-armature and iron-diaphragm type speakers. In the later derivations of these assemblies, paper cones (such as in the popular Atwater Kent early speakers) were attached to moveable pole pieces by a mechanical linkage instead of having a metal diaphragm. In any case, they all required a fairly strong permanent magnet in order to give useable volume.

Back in the old days, they didn't have magnets that used steel alloys like Alnico nor did they have ceramic type magnets - all of which are nearly impervious to demagnetizing. So, mechanical shock, inadvertent AC voltage on the coil and "aging" could cause the speaker's permanent magnet to weaken in strength. The typical test for a good magnet was to touch the magnet face or pole piece with a screw driver. As Mr. Ghirardi says, a tenacious "pull" should be felt. If the attraction is weak then the magnet needs re-magnetizing.

Be aware that there are any number of reasons why these speakers may work poorly or not

at all. Be sure that you've checked out the speaker for other faults before going to the trouble of re-magnetizing. Reasons for failures that I've personally run into are;

\* An open coil or lead wire. Its not uncommon to have the lead wire separate from the coil right where they're soldered together. Its a touchy job, but not impossible to fix this situation.

\* Metal particles and/or flakes of old coil varnish collected in the airspace between the magnet and the diaphragm or moveable pole piece. It may take a disassembly to take care of this problem.

\* Some of these speakers had an "operator accessible" adjustment that optimized the attainable volume. Sometimes rust/corrosion and/or mis-adjustment caused problems.

\* The speakers that have paper cones are commonly subject to tears, distortions due to dampness, and separated glue seams and joints.

The basic process of re-magnetizing involves placing the depleted magnet core through a coil of wire which has a momentarily strong DC current passing through it. The coil, as

described in the book, is made on a form consisting of a 1.25" diameter round dowel fitted with flat end plates - similar in appearance to a typewriter ribbon or film reel. The width of the form, or the distance between the end plates is 7/8". At least one of the end plates needs to be removable so that the finished coil can be removed. The book suggests that strips of cotton or other insulating material be used to cover the form before the wire is wound on.

The coil itself is made up of 196 turns of #16 AWG enameled covered wire laid down in 14 layers of 14 close wound turns each. This amounts to a pound of wire - a unit of measure in which the wire can be bought. When you are finished with the windings, you need to continue with the taping so that the coil will not fray and will stand up to use. Perhaps you might want to attached sturdier multi-strand lead-in wires such as you find on a power supply transformer. Just make sure that the "hole" in the coil is kept clear for its intended use.

This coil, as designed by Ghirardi's, should draw about 12 amps on a 6 volt car battery. Guess what? I bet you can't find a 6 volt car battery! So, just use the 12 volt battery in your old

heap, right out there in the garage. In order to accommodate the higher voltage, you'll want to change the wire size to 22 AWG and increased the winding to about 200 turns.

A safety point to stress, is that you must be VERY cautious and aware that either voltage version of this coil will heat up quickly due to the fairly high current draw. However, as indicated below, only a momentary application of voltage to the coil is necessary.

The actual re-magnetizing process goes like this;

\* The magnet is slipped through the coil. Position is not important so long as some part of the magnet is ALL the way through the coil.

\* A "keeper" of soft steel MUST be in place across the pole faces before the coil voltage is applied. this is very important in order to properly conduct the magnetic lines of force through the magnet core. The keeper must lie smooth and flat on the pole faces - just like they did on those toy magnets that we had when we were kids.

\* The coil is momentarily placed across the battery voltage - for no more than a second. Again,

be VERY careful and watchful for coil over heating. You could use a power supply instead of a battery, but you'll need one that can supply about 15 Amps.

\* With your third hand(!?), and while the coil is connected to the voltage, strike the magnet with a sharp blow with a small hammer. Presumably this helps the steel molecules to align magnetically.

So that's it. Careful re-assembly should have your speaker as good as new.

#### Sources

Dave Gonshor, past CRC member

Alfred Ghirardi's 1935  
"Modern Radio Servicing"

# "The Open Trunk" Classified

## ◆ See IFC for ad details ◆

FOR SALE: Reproduction Philco Cathedral cabinet parts. Front panels, rear arches, bottom moldings. Grandfather clock finials, colonial clock top trim and finials. Reproduction 90, 70 and 20 (std) cabinets. Other needs such as other style moldings from your sample. Inquire. **Dick Oliver**, Antique Radio Svc., 28604 Schwalm Dr., Elkhart IN 46517. (219)522-4516

WANTED: The female power (battery) plug for a Kemper portable K-52. Similar to octal except has 7 pins and two round locating pins (edge and center). • Knobs for a Crosley 601 bandbox. **Mark McKeown**, (303) 78-3908 mmckeown@tde.com

WANTED: Stewart-Warner model R-123 chassis, used in receiver models 1231 to 1239 (see Riders volume 6 page 6-2 for picture of chassis). • Chassis for AK 217, and Majestic 371. **Jerry Tynan**, (303)642-0553 jtynan@worldnet.att.net

WANTED: White or beige knobs for a GE 401/410/411. They look like the smaller size of Reese's Peanut Butter Cups. **Mark Gibson**, Loveland CO (970)593-3032, mark\_gibson@hp.com

FOR SALE: Copper Rod, several

diameters available to make your own soldering iron tips (or I can for you). • Radio repair and restoration service. **David Boyle**, 1058 Colt Cir., Castle Rock, CO 80104 (303)681-3258

WANTED: GE clock radios, models 935 & 936. **Tom Kelley**, 971-1/2 Pleasant St., Boulder, CO 80302 (303)444-1837

WANTED: Silvertone top for model 1320, 132. Slotted, 1-7/8" dia. • Call **Wayne Gilbert** (303)465-



WANTED: Novelty radios: Mountain Dew - BB-92 • Mr. & Mrs. "T" BB-106 • Shell - Breed 296 • Coke - Breed 387 • Coke Breed - 388 • Slot Machine - Breed 435 • Light Bulb - Breed 494 **Ron Smith**, 145 Carr St., Lakewood CO 80226, (303)274-7522

WANTED: Old horn speaker parts, drivers and incomplete units. Also, old light bulbs with tip and good filaments. **Charles Combs**, 508 E. Daniel St., Albany MO 64402 ph/fax (660)726-3038

WANTED: Old Radio magazines for my research library in Antique Radio. Need pubs like Radio Design, Radio Age, and Radio Craft -1920's thru 1940's. Will provide home, or purchase singles or full sets at a fair price. Also interested in publications from various companies; Aerovox, RCA, Sylvania, Bell Labs, etc. Likewise, need old test equipment literature and manuals. **Charles Brett** 5980 Old Ranch Rd., Colorado Springs CO 80908 (303)495-8660

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WANTED: Communications gear, manuals, parts & catalogs from manufacturers such as Hallicrafters, Hammarlund and kit makers. Also, telegraph/morse keys, bugs & paddles. Cash or trade (including transistor sets. **Robert Baumann**, (303)988-2089, rgbdenver@att.net

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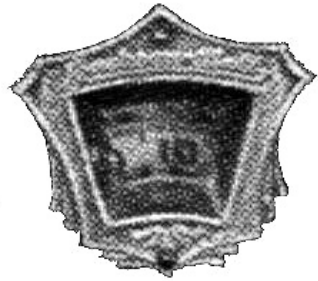
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WANTED: Novelty **tube** radios, such as books, horses, lamps houses, kegs etc. **Ray Windrix**, 617 N. Murray Bl., Colorado Springs Co 80915, (719)597-5098 or (719)596-7196

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FOR SALE: 2 TRF radios - brands unknown. One is complete and in very good condition, the other is missing the top but otherwise appears complete. Both for \$120. **Bob Schineller**, (303)682-1749 or rgschin@aol.com



WANTED: Escutcheon for a Jackson-Bell Swan cathedral - pictured here and in Bunis #4 page 116.

**Ed Brady**, 1333 White Rim Pl. NE, Albuquerque NM 87112 (505)292-048, cebrady2@yahoo.com

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WANTED: Hoffman Nugget pencil tube pocket radio • Japanese WWII morale receiver. Will pay your price. **John A. Miner**, (303) 759-9152 hohum@qwest.net

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WANTED: KLH model 8 receiver with or without the matching speaker. • Parts for 1934 Zenith 880 console (835, 880, 881 parts will work): dial glass, black Z pointer, knobs (round wood, no Z), 5 tube shields. • Also, plastic dial strip (with frequency) for Philco 89 and 19 with separate shortwave band (late version)

**William Hinkley** at (303)730-8539, philcobill@aol.com.

FOR SALE: Zenith console cabinet only, 10S669, faux finish bad, wood ok, \$25

WANTED: parts for 1934 Zenith 880 console (or 835, 880, 881); dial glass, black Z pointer, knobs (round wood, without the Z), tube shields (5). Also need plastic dial strip (with frequency) for Philco 89 and 19 with separate shortwave band (late version).

**Dan Busetti**, (719)473-2443,  
menwagoh@msn.com

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**FIRST CLASS**

STAMP

**The November meeting is at the  
Museum of the Americas  
863 Santa Fe (between 8th & 9th Ave's.)  
1:00pm**