



The FLASH!



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

Volume 14, Issue 6

** CRC ANNUAL AUCTION REPORT **

November - December, 2003

Dr. Lee de Forest

Inventor of the amplified vacuum tube

Submitted by Ray Kilcoyne, CRC Member

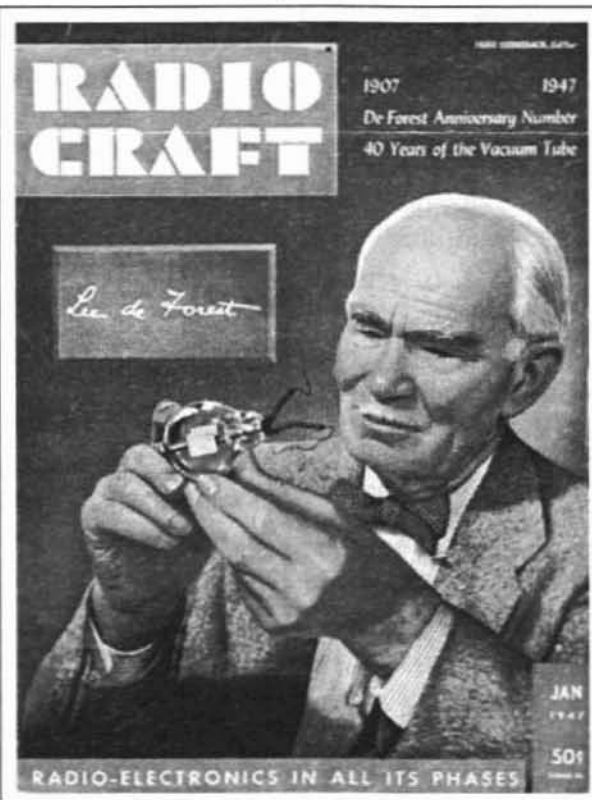
The January, 1947 issue of *Radio Craft* magazine was dedicated to a celebration of the 40th Anniversary of the invention of the three element radio tube by Lee de Forest, one of the early pioneers in the development of broadcast radio. In the same way that Marconi is described as the "father of wireless telegraphy," de Forest styled himself as the "father of radio." The introduction to the *Radio Craft* celebration was written by Hugo Gernsback, publisher of the magazine. Dr. Lee de Forest was born in 1873, the son of a poor Iowa minister. His mother was the daughter of a minister. From early childhood he was steeped in such virtues as reverence, discipline, humility and thrift.

In the first article in the magazine, Dr. de Forest describes how the audion was invented. Much of the following description is taken from his article. For years he had been working on a method to amplify electromagnetic waves. Early experiments employed gas flame detectors with two platinum electrodes and a Bunsen burner. The electrodes were connected to a battery. In an experiment he connected one of the flame electrodes to an antenna and the other to the ground and was able to receive wireless signals from ships in nearby New York harbor. Realizing that a gas-flame detector would not be practical he had a manufacturer of miniature incandescent lamps,

Henry McCandless, build a tube containing a platinum plate and carbon filament. The plate was connected to the positive side of a dry battery, the negative terminal to the filament. In series was a telephone receiver. In the article, he emphasizes that this device was *not* the "Fleming valve" with a third electrode inserted. "Without the use of a B-battery the valve would be nothing but a rectifier with one too many electrodes." "The employment of the local battery in the plate circuit is just as necessary an element to the success of the device as is the grid itself." "This device was a genuine relay, in which

the local energy of the plate battery supplying the current through the remaining gas in the tube was controlled by pulsations of the incoming high-frequency waves, which were picked up on an antenna connected to the plate electrode, the filament being connected to the ground." He states he was employing the high-frequency energy, not to actuate a telephone diaphragm, as Fleming had done, but to control very much larger quantities of energy from the local battery. To improve the sensitivity of the detector he wrapped a piece of tin foil

around the outside of the cylindrical-shaped gas envelope, and connected this third electrode to the antenna or to one terminal of the high-frequency device. He then realized that the efficiency could be still further enhanced if this third electrode were placed within the glass envelope. He had McCandless construct this new device that he called an "audion." This device contained two plates



COLORADO RADIO COLLECTORS ANTIQUE CLUB

Founded October 1988

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IN THIS ISSUE

Dr. Lee de Forest - by Ray Kilkoyne	1
On the Colorado Scene - by Ray Windrix	4
The "New Guy" on the Block - by Dan Smith	4
A View from the Tower - by Ray Windrix	5
The CRC 2003 Annual Auction Report - by Larry Weide	6
Collector Books for Sale - by Charles Brett	8
Open Trunk - Classified Advertisements	9

MESSAGE FROM THE PRESIDENT

Well, here we are quickly approaching the end of another year for the CRC club. It hardly seems possible that this Flash and the November meeting finish up the activities for the year. As I hope you all know by now, I have agreed to stay on as President for 2004. I am still committed to keeping the club interesting, fun, and educational for all the members, and encourage everyone to come forward with ideas or suggestions as to activities, programs, or other things of an interest to the club members.

We just completed our annual auction of which the results are included in this issue. It turned out to be a beautiful day, and by mid afternoon it felt like the middle of summer. I particularly want to acknowledge and give thanks on behalf of all the club members to Mike McCutcheon for all the behind the scenes work and preparation in providing us with a place to hold the auction as well as providing auction day refreshments, sun awnings, chairs and facilities access. Of course we all want give our thanks to Tom Pouliot who once again did such a great job as our auctioneer.

I hope to see a big turn out for our next meeting, which will include a tour of the Museum of the Americas. For those that missed the last tour I encourage you to come out and see what the museum is all about.

Unfortunately I will again miss the January meeting due to being in Wales for about a month at Christmas time.

Thanks again to all the members who have helped out at all the events throughout the year to make this year a big success for the club.
- Dennis

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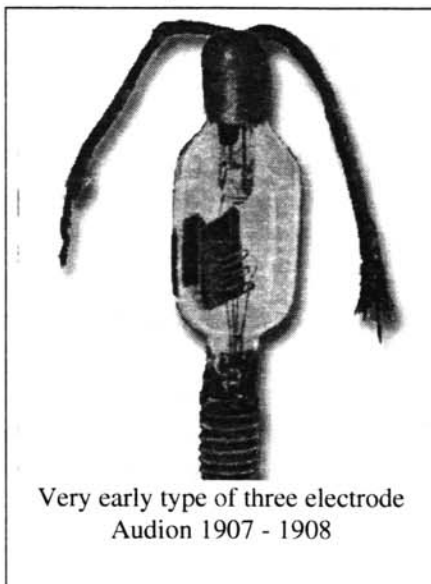
Annual membership in the CRC runs from **June to June**. Annual dues entitles members to a full year (6 issues) of the club publication "The Flash!". Membership provides participation in club events such as the annual April Show, mid-summer picnic, September auction as well as our semi-monthly meetings and swap meets. Dues also entitle you to club officer elections, excellent discount prices on current hobby publications and the Antique Radio Classifieds annual subscription raffle every May!

Current annual dues are \$12. New memberships will be prorated to renewal on the following June, i.e new members joining in May should submit \$12, in December \$5, etc.

CRC MEETINGS

Meetings are held on the second Sunday of every other month starting in January (except 3rd Sunday of May) at 1:00pm at the Museum of the Americas Bldg., 2nd floor, 863 Santa Fe (between 8th & 9th Aves.). The meetings consist of business, "show & tell", raffles, swap meets and discussions of technical and other subjects of interest.

with a filament located between them, and, as before, a considerable amount of gas in the envelope. This detector showed distinct improvement over its predecessors.



Very early type of three electrode
Audion 1907 - 1908

Next he decided that the third or control electrode could be located more efficiently between plate and filament. "Obviously this third electrode so located should not be a solid plate." He supplied McCandless with a small plate of platinum perforated by a great number of small holes. The arrangement performed much better than anything preceding it, but in order to simplify and cheapen the construction he "decided that the interposed third electrode would be better in the form of a *grid*, a simple piece of wire bent back and forth, located as close to the filament as possible." During this time he coined the terms of "A" battery for a six-volt filament energizer and "B" battery for the plate battery. Early in 1907 he conceived the idea that this remarkable wireless telegraph detector - the three element or grid audion - might also be useful as an amplifier of audio frequency or telephonic currents. He "took out a patent containing very broad claims on the device as an amplifier of currents without limitation of the frequency thereof." (This point later assumes additional significance in his protracted lawsuit with Edwin Armstrong.) The patent, No 841,387 was granted January 15, 1907, An additional patent on the grid electrode, No. 879,532, was filed January 29,1907.

In his first experiments on the audion as an amplifier for telephonic currents he added a third or "C" battery, as he called it, in series with the control electrode. Unfortunately he did not specify the polarity of this C battery connection to the control electrode, although the patent applications show

clearly the negative terminal connected to the control electrode. Due to this omission, Fritz Lowenstein was able, a few years later, to obtain a very valuable patent covering the negative bias of the grid.

Continuous improvements were made from 1906 to 1910 in the form of the audion. Various materials were tried for the filament, plate, and grid. Initially de Forest thought that the gas within the tube was an important part of the circuit. As an experiment, he introduced various amounts of vacuum into the tube. Subsequently, he determined that a high vacuum in the tube would allow a much higher plate voltage. In some versions of the audion he added a second filament, which effectively doubled the life of the tube. If one filament burned out, the second could be hooked up. He also developed the "double audion" with two plates and grids on either side of the double filament. This was the first successful application of the "push-pull" amplifier circuit. De Forest had several hundred other patterns ranging from diathermy, talking pictures, photoelectric devices, range finders, and television apparatus to airplane instruments. Many tributes to the inventor are included in the magazine. Names familiar to current-day readers include David Sarnoff (president of RCA), W. D. Coolidge (inventor of the modern x-ray tube), William Dubilier (inventor of the mica condenser), Charles F. Kettering (inventor of the automobile self-starter), and Vladimir Zworykin (inventor of modern television).

Tom Lewis, in his book *Empire of the Air: The Men Who Made Radio* notes some controversy about the significance of Dr. de Forest's inventions. He is compared to two other early radio pioneers, General David Sarnoff and Edwin Armstrong. In an acrimonious 1915 lawsuit de Forest claimed that he, and not Armstrong, had discovered the principle of regeneration of electromagnetic waves. However his testimony in those proceedings indicated that he did not have a clear understanding of the regeneration principle. Rather his knowledge of the device evolved after he had read Armstrong's patent application. Following judgements against him by a trial court and an appeals court, de Forest appealed to the U. S. Circuit Court and won several decisions at that level. This long process culminated in 1928 with a decision by the U. S. Supreme Court stating that he had precedence over Armstrong for discovery of the regeneration principle (by right of his 1907 patent that applied to amplified circuits without limitation of the frequencies employed).

On the Colorado Springs Scene

by Ray Windrix, CRC Member

Some of you guys know I run a "one horse" barber shop with junk all over the place. Anyway, talking radio with a customer, it turns out he had a "family" set he needed fixing.

I let him know that I have trouble getting my sets repaired myself and have to pester club members. So I gave him a catalogue from the outfit in Mesa Arizona.

He ordered some tubes and this still didn't fix the set. I told him the set would have to be gone through, replacing the capacitors, etc. This whole episode took place over a period of about a year! Well, I broke down and told him I'd try and find someone to look at it.

To show how confusing it gets talking with "the public", I'm thinking of a table model. Naturally he drags in a 1942 vintage Firestone console, very similar to the Philco consoles of that time. This radio had a lot of family meaning to him. He remembered listening to it during the WWII years.

Riding to the rescue came club member Bill Harris. Bill came by the shop for a haircut and noticed the set. I told him the situation and Bill volunteered to help. He did a great job on the radio and charged a very modest price. The man had left a phone number for when it was ready. He asked to be called if the repairs exceeded \$350!

To make a short story long, he picked up the thing, was delighted and insisted on giving me \$20 as a donation to our club.

The "New Guy" on the Block

by Dan Smith, CRC Member

As a former broadcast journalist, I felt compelled to contribute something, even though as a newbie it's already very evident *I know next to nothing about electronics* - especially compared to the rest of the membership.

My main attraction to the group was a shared interest in antique radios and other electronics, and having been to an auction or two in years past, I decided to carry out my threat to actually join and pay dues.

After the first meeting, I'm impressed with the accumulative knowledge of the membership, the

friendliness, and how active a radio group this is, with the constant communication, events through the year, and the newsletter. I hope, as you and Larry Weide emphasized at the last session, everyone finds a little something to contribute to this newsletter. It's a way of getting to know your fellow members, and to add to the overall database of expertise within the membership.

For starters, I'll talk about a few things I see of benefit to me as a new member, and what I have done to date in my beginner's 'collection.'

My main desire is to learn something about:

A. Basic electronics - unlike many of you, I've had most of my radio experience on the air, being, as one of my engineer friends used to call us: "One of those leather-lunged idiots behind the mike." In fact I was never much of a technical kind, even from high school (although I now wish I'd continued with some of those voc-ed classes in electronics I found so interesting back then - it's just that girls and music were a *little more interesting!*)

B. The process of restoring what antique radios I have - and those I've yet to acquire. I've been pretty realistic thus far with my collecting - and looked mainly for set already restored, or all original and still operating sets I could find replacement parts for after getting some sage advice from folks like you in the membership.

C. The art and science of collecting vintage radios (and possibly other things like TV) I have a great admiration for those who can tell us about the specifics of certain types of sets, what tubes can be substituted for what other tubes, which are the rarer and more valuable types and where to hunt those collectible beauties.

My collection to date includes:

A 1937 (I'm told) RCA console (model 88K) with short, 'medium' and broadcast bands, still working, except for the 'magic eye' tuning tube (the radio with a brain) that needs replacing. I can still listen to radio Moscow on it - and, surprisingly, it came from West Denver Electric Co, 828 Sante Fe Drive - not far from where we meet, right? It was once owned by Rev. Maurice Nichols of 1408 Rice St. (name written on the chassis) I bought it at auction in Colorado Springs.

The other 'big one' I own (purchased in Green Bay several years ago) is a Philco radio-phonograph console (the pull-down turntable kind) model number 49-1605, with a nice mahogany cabinet in very good shape, and still a working model.

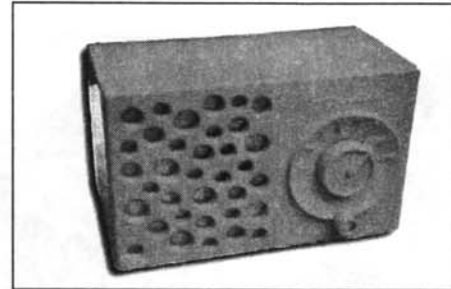
Aside from a restored Trutone D-1118 bakelite, an old farm radio, Stewart-Warner wood battery radio awaiting restoration, and one RCA clock-radio model that still works, my 'project radio' now is an RCA model 65-U radio-phonograph (1943 I think) that's all original, wood cabinet still in good shape, and almost working (it makes a loud hum when plugged in, has all parts that I can tell) so that I'm confident with the right book and advice from fellow CRC members, I can sit down at the workbench and begin to unravel the mystery of this unit's interior and operation without many blown fuses or shocks.

If I'm successful, maybe I'll bring it in one meeting as my 'show and tell' first project.

In conclusion, I think the CRC is a fine organization with a lot to offer and a great future for itself and the newsletter, with the help of you members and some outreach to the community at large.

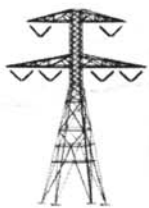
Thanks for your hospitality for the 'new guy' and I look forward to many interesting meetings, fellowship and technical challenges for the future.

alarm clock from the 40's or 50's. The kind you found in Woolworth store. The thing was in pieces, a real mess. My first thought was to toss it in the trash. I remembered that Bill Harris had worked in a watch/clock factory at one time. His wife, Virginia, collects clocks. So I dumped the mess on him. Bill brought the clock along to show me. The "smarty pants" guy has totally repaired and repainted it. It was as cute as could be. See? ...



Dan Houfer passed around an old odd ball ballast tube. The cafe owner, Terry Davidson, had a neat Zenith tombstone on display in a glass case up by the cash register.

Much needless electronics was "regusted"! Come on and join us the 2nd Monday of the month at 9:30am. Ya'll hear! Come back!



A View From the Tower

As seen from the Colorado Springs monthly get together - by Ray Windrix, CRC Member

[Please note that this article was written before the sudden passing of Karl Jesness and John Thomas - Ed.]

Hey Bob, pass the salt and pepper. Bill, please pass the syrup. What was that Charlie? I didn't hear you, my mouth was full.

OK, this is your ole' substitute reporter, seems John Thomas is off in Texas. I'm reporting to you from the "Shoppers Grill" in Colorado Springs. Er, yes Karl, you can have a piece of my bacon.

Eight people showed up; Bob Slagel, Charlie Brett, Bill Harris, Ray Kushnir, Karl Jesness, Dan Houfer, Bob Swigert and myself. By the way, where was Dick Pache?

I brought a Crosely JT3, 1955 for show and tell. It had bottom rear corner broken off. It's a plastic set. Bob Slagle repaired it for with fiberglass and resin. you can't tell it was ever broken. He painted it a bright red. It looks great! [pictures included - LW]

Somebody brought me an old cheap tin art deco *The Flash!*

* Thanks to Robert Baumann, here is a source for *
 * older books on amateur radio. There are over *
 * sixteen pages of book titles offered for sale, *
 * which include older ARRL Handbooks. *
 * * * * *

bequaert old books

CATALOG HR10

AMATEUR RADIO BOOKS

<p>ANTENNA</p> <p>4W FULL WAVE</p>	<p>ANTENNA</p> <p>1W 1/2 WAVELENGTH</p>
<p>ANTENNA</p> <p>1W 2 WAVELENGTH</p>	<p>ANTENNA</p> <p>1W HALF-WAVE MONOPOLE</p>

From Item No. 138

Box 775 Route 119
 Fitzwilliam, NH 03447
 (603) 585-3448
 info@beqbooks.com

CRC ANNUAL AUCTION RESULTS

Eager bidders, lots of interesting auction items and a beautiful day resulted in another successful CRC auction for 2003. About \$4,600 dollars worth of lots passed hands which resulted in just over \$500 in commissions for the CRC. Thank you one and all for supporting our most important fund raising event of the year. [Auction pictures courtesy of Wayne Gilbert, Bill Grimm and Larry Weide]



Previewing this year's 166 auction items



Our Auctioneer Tom Pouliot being helped by Jerry Tynan (left) and Merrill Campbell



Larry Weide (left) and Robert Baumann managing the recording and accounting



The bidders give their rapt attention



Dave Boyle (left) purchasing a collector book from the CRC book manager Charles Brett



Robert Baumann succumbs to the urge to express himself on the museum's courtyard wall - wow!

<i>Auction Lot Description</i>	<i>Sell Price</i>	<i>Condition</i>
01A tubes qty 6	70	
Accurate 153 Sig Gen & Tracer	7	
Accurate 156 TV Sig Gen	5	G
Admiral 304 AM/FM	1	G
Admiral 7F33 Portable	2	
Admiral Y3543 Clock Radio 1963	3	
Aetna 252 1936	50	G
Airline 1061	2	F
Airline 62-2749 Console 1950s	10	
Amplifier w/2 -199's	40	F
Atwater Kent 37 1927	70	G
Atwater Kent 40 1928	90	
Atwater Kent Speaker	75	G
Aviola 601-612	1	F
Box - Crystals, Caps, Resistors	15	
Box of Knobs	25	
Box of parts	10	
Box of parts #1	1	
Box of parts #3	2	
Box of parts #5	1	
Box of parts #6	1	
Box of parts #7	1	
Box of parts #8	1	
Box of parts #9	1	
Box of parts #10	1	
Box of various parts	25	
British Comm. Recvr .5M - 30MHZ	65	
Bulova S-T26182	12	F
Cartrivision VCR	1	
Collins 51J4 w/270G-3 Speaker	260	
Collins 83-2 FM Exciter	10	
Cornell-Dubilier BF-60 C-R Bridge	5	G
Coronado 1882A 1940's	10	F
Crosley 51 1924	90	F
Crosley E20GY, 1953	10	F
Crosley JT4	1	F
Delco R-1236 1947	4	F
Delco Table Radio w/push buttons	50	E
Detrola 572 Shortwave	5	F
Detrola Cathedral	30	P
Eico 950B Capacitance Bridge	10	G
Electro Table Radio	15	G
Electronic Designs VTVM	2	
Eveready 52 highboy	110	
Federal Ortho-Sonic Cabinet	2	F
Fiat, Loop Antenna	100	F
FlashAcall Intercom 1945 w/Speaker	20	
GE 14T010 Television with Clock	10	
GE 250 1946	10	G
GE 422	10	F
GE C4501A	1	G
GE T239A, AM/FM Radio	1	G
General Radio 1001A Sig Gen	35	E
General Television 47	30	
Gillfilan Table Radio	15	
Grunow 5B, knob missing, bad cord	55	F
Grunow 640 Tombstone 1935	130	E
Guild 6407 Country Bell	55	
Guild Spice Chest Radio	70	
Hallicrafters S-38	40	G
Hallicrafters CBs, CB-2 & CB-3A	30	
Hallicrafters S-40B 1950	40	
Hallicrafters SX-100 w/R-46A Spkr	230	E
Hallicrafters SX-24 Sky rider	45	G
Hallicrafters SX-25 1945	55	G
Hallicrafters SX-76	80	E
Heathkit 41 Shortwave Receiver	20	
Heathkit SG-8 Signal Generator	6	G
Heathkit, Brown Leather	10	G
Heavy Duty 'Scope Cart	5	
Hickock 188X Signal Generator	1	P
Howard 807 1940s	25	F
Jefferson Travis (guts) 1947	12	F
Jewell Clock Radio 1940s	3	G
Johnson Viking Invader Transmitter	75	
King battery Radio	20	G

<i>Auction Lot Description</i>	<i>Sell Price</i>	<i>Condition</i>
Lafayette Midget	30	G
Large qty of tubes	65	
Large qty tuning capacitors old/new	10	
Lear Table Radio	7	F
Majestic Radio/Wire Recorder	10	
Meck RC-5C5 1946	35	E
Military LS-166/U Spkrs	9	E
Narco Airplane Radio and Generator	5	
National HRO-W w/Coils & Pwr Pk	100	
National Radio & TV - Srvc Course	25	
Philco 3971 1939	10	F
Philco 48-250 Transitone 1948	7.5	G
Philco 78-10000-12	3	G
Philco Bakelite Radio	2	F
Philco Portable Radios qty 5	5	P
Philco SY77459	85	G
Plata 8R-34	1	
Precise 635 sine/square/pulse Gen	7.5	F
Project Radios and Cabinets	30	
Proton 300 AM/FM Receiver	20	E
Qty 10 Transistor Radios	10	G
Rider Manuals Abridged, 6 - 15	100	
Rider Manuals 1 - 5	110	F
Transistor Radios, pockets/portables	15	F
RCA 16T2 1940	30	G
RCA 65X1, knobs gone, no plug	3	F
RCA 6V battery radio	2	
RCA 8X541 1949	20	E
RCA 95T5 1938	60	E
RCA ACR175 Receiver 1936	75	
RCA EMRC	4	F
RCA LWU-181 1947	13	F
RCA Plastic Radio	6	G
RCA R-28, no knobs or cord	5	F
RCA Radiola 18, no knobs, one tube	10	
RCA RHD10Y	2	G
RCA Wood Radio	25	G
Scott 510 AM/FM Tuner	12	G
Silvertone 9008, Ivory	3	G
Sony ICF-9740W	2	E
Spartan 6BM66 1948	15	E
Stromberg Carlson 235F 1937	350	
Stromberg Carlson Wood Radio	35	G
Supreme 565 VTVM	5	F
Sylvania 542BR, 2 knobs missing	5	G
Tektronix 2213 'Scope 60 MHz	40	G
Telechron Clock Radio 1948	2	
Telefunken Opus 2114	45	E
Traveler 5356 1953	25	E
Traveler Table Radio	2	F
U.S Navy R-1051/URP Receiver	55	
Westinghouse H-165 Portable 1948	10	G
Westinghouse H374T5 Clock radio	2	G
Westinghouse H648T4 1958	6	
Westinghouse H-769P7	1	E
Wood Cathedral, w/tubes	50	G
Wooden radio model 4603 1940's	5	F
Zenith ??	20	F
Zenith 4A03	10	P
Zenith 6D815W	5	G
Zenith 6G501 1941	35	G
Zenith 7S633 1942	150	E
Zenith Clock Radio	20	
Zenith F512 1960's	1	G
Zenith G500 Trans-Oceanic	65	F
Zenith H500 Trans-Oceanic	120	G
Zenith L513W, Clock Radio	1	F
Zenith L-721, 1954	6	G
Zenith Portables & 1 chassis	25	P
Zenith S-14879 Wood Radio	1	F
Zenith S-14977, with handle	3	F
Zenith S-88845	1	G
Zenith T600 Trans-Oceanic	110	F

Note: Sixteen "No Sale" items have not been listed
Condition Codes: E=Excellent, G=Good, F=Fair, P=Poor

Collector Books for Sale

Special CRC prices. Order at club meetings. Mail order shipments: add \$2.00 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

	Retail	Club
RADIOS, (GENUINE PLASTIC) OF THE MID CENTURY Jupp & Pina, hard bound, 219 pgs, 1998 P.C., 450+ color pics	\$39.95	\$28.00
ANTIQUE RADIOS, COLLECTOR'S GUIDE - 4th EDITION Bunk, 1997 values, revised & updated, new photos, 248 pgs	\$18.95	\$15.00
GUIDE TO OLD RADIOS, POINTERS... - 2nd EDITION Johnson, 277 pgs, 1995-96 prices	\$19.95	\$15.00
ANTIQUE RADIO RESTORATION GUIDE - 2nd EDITION Johnson, 144 pgs, repairing, refinishing, cleaning	\$14.95	\$12.00
RADIO, EVOLUTION OF THE - VOLUME ONE: 227 pgs, 118 in color, More than 800 radios pictured, 1992	\$22.95	\$18.00
RADIO, EVOLUTION OF THE - VOLUME TWO: 226 pgs, Radios of the 1920s to 1960s, with 93-94 values	\$24.95	\$19.00
TRANSISTOR RADIOS, COLLECTOR'S GUIDE VOL. II Bunk, 1996 prices, Full Color	\$16.95	\$13.00
ZENITH TRANSISTOR RADIOS, 1965-1965 Smith, 1998 P.C., 160 pgs, 226 color pics, info, descr.	\$29.95	\$22.00
THE ZENITH TRANS-OCEANIC (THE ROYALTY OF RADIOS) Bryant and Cones, 160 pgs, 1995	\$29.95	\$22.00
ZENITH RADIOS THE EARLY YEARS 1919-1936, Cones 1997-98 Price Guide, 223 pgs, 100% Photos, Desc., Hist.	\$29.95	\$22.00
RADIOS BY ILLUSTRATORS, revised 2nd edition Duchs, 1999 values, 220 pgs, 1000+ pics, id's, history	\$29.95	\$22.00
CLASSIC TV'S, PRE-WAR THRU 1950'S 86 pgs, color & b/w pics, descriptions, etc.	\$18.95	\$15.00
Machine Age to Jet Age, Radionama's Table Radio Guide 'III, 33-62 Stein, 256 pgs, 100's of b/w photos	\$29.95	\$24.50
TRANSISTOR RADIOS, 1954 TO 1969 Norman Smith, with prices, 160 pgs, 1000 photos, 1998	\$29.95	\$22.00
PHILCO RADIO: 1928 - 1942 Ramirez & Prosser, 160 pgs, 828 pics & drawings, 1993	\$29.95	\$22.00
RADIO AND TV PREMIUMS Jim Harron, 256 pgs, 200+ photos, 1997	\$24.95	\$19.00
RADIO MANUFACTURES OF THE 1920'S VOL. I Alan Douglas, 225 pgs, 1988	\$24.95	\$19.00
RADIO MANUFACTURES OF THE 1920'S VOL. II Alan Douglas, 266 pgs, 1989	\$29.95	\$22.00
RADIO MANUFACTURES OF THE 1920'S VOL. III Alan Douglas, 285 pgs, 1991	\$29.95	\$22.00
CRYSTAL CLEAR VOL. I Maurice Stevens, 282 Pgs, 1991	\$29.95	\$22.00

CRYSTAL CLEAR VOL. 2 Maurice Stevens, 252 Pgs, 1995	\$29.95	\$22.00
RADIO TUBES AND BOXES OF THE 1920'S George A Fahnauer, 112 Pgs, 1999	\$26.95	\$20.00
70 YEARS OF TUBES AND VALVES, 2ND EDITION John Stokes, 264 Pgs, 1997	\$29.95	\$22.00
RADIO DIAGRAM SOURCEBOOK Richard Gray, 264 Pgs, 1996	\$18.95	\$15.00
THE RADIO COLLECTOR'S DIRECTORY AND PRICE GUIDE, 2ND ED. Robert Grinder, 524 Pgs, 1995	\$26.95	\$21.00
COLLECTOR'S GUIDE TO VINTAGE TELEVISION Durnal & Glenn Bubbenheimer, 200 Pgs, 1999	\$15.95	\$13.00
NOVELTY RADIOS, VOLUME 1 Harry Bunk & Robert Breed, 223 Pgs, 1995	\$18.95	\$15.00
NOVELTY RADIOS, VOLUME 2 Harry Bunk & Robert Breed, 199 Pgs, 1999	\$19.95	\$15.00
COMPLETE PRICE GUIDE TO ANTIQUE RADIOS: PRE-WAR CONSOLES Mark Stein, 235 pgs, 100's of b/w photos	\$29.95	\$22.00
TUBE TESTERS AND CLASSIC ELECTRONIC TEST GEAR Alan Douglas, 166 Pgs, 2000	\$25.95	\$19.50
COLLECTOR'S VACUUM TUBE HANDBOOK, VOLUME I Robert T. Millard, 196 Pgs, 2001	\$25.95	\$19.50
SILVERTONE ANTIQUE RADIOS 1930 - 1942 Stein, 239 pgs, 2001	\$34.95	\$25.50
ANTIQUE RADIOS COLLECTOR'S GUIDE 5th EDITION John Smisser, 264 Pgs, 2001	\$19.95	\$15.00
RADIOCRAFT JUBILEE - REPRINT OF 1938 EDITION Hugo Gernsback, Vestal Press	\$12.00
CLASSIC CONE SPEAKERS Buford & Jane Childster, 122 Pgs, 2001	\$25.95	\$19.50
TUBE LORE Ludwell Silbey, 186P pgs, 1996	\$29.00	\$15.00
ARTHUR COLLINS RADIO WIZARD Ben Sterns, 394 Pgs, 2002	\$18.95	\$14.00
MACHINE AGE TO JET AGE - VOL. I Mark V. Stein, 256 Pgs, 1998	\$24.95	\$21.00
MACHINE AGE TO JET AGE - VOL. II Mark V. Stein 358 Pgs, 1997	\$28.95	\$23.00
TABLETOP RADIOS - Vol 1 Mark V. Stein, 240 Pgs, 2002	\$29.95	\$22.00
A. A TWATER KENT Williams & Wolkowicz, 108 Pgs, 2003	\$25.95	\$19.50
THE WOOD FINISHER Bruce Johnson, 341 Pgs, 1993	\$12.00	\$10.00
THE WEEKEND REFINISHER Bruce Johnson, 296 Pgs, 1989	\$12.00	\$10.00
THE PLATING MAN'S MANUAL Johnson	\$10.00

THE FABULOUS VICTROLA "45"

\$29.95

\$22.00

Phil Vourstis, 176 Pgs, 2002

NEW BOOKS COMING SOON!

ZENITH RADIOS THE GLORY YEARS 1936 - 1945 Cones, Bryant & Blankinship, 256 Pgs, 2003

\$34.95

\$25.50*

ZENITH ILLUSTRATED CATALOG AND DATABASE 1936 - 1945 Cones, Bryant & Blankinship, 182 Pgs, 2003

\$29.95

\$22.00

* Expected club price

The Open Trunk

Member submitted advertisements



WANTED: Old Colorado and Denver radio history info. I have quite a number of 1930's-40's radio magazines to trade for earlier radio documentation.

Wayne Gilbert (303) 431-6774, wagil@aol.com

10/03

WANTED: Any WWII Japanese radio, working or not. Thanks. **John A. Miner**, (303) 759-9152

10/03

WANTED: Morse keys/bugs/paddles, Allied Radio/Knight Kits, "heavy metal" communications gear (Hallicrafters, Hammerlund, etc.) **Robert Baumann** (303) 988-2089, rgbdenver@att.net

10/03

FOR SALE: Five tabletop radios, including Airline, Stewart-Warner, Motorola, RCA clock-radio, some work, some don't, one with schematic. **Dan Smith** (303) 321-8779, after 7:30 p.m.

10/03



(l to r) Carl Armon, Mark Mckeown, Charles Brett and Leamon Brooks settle down for an afternoon of bidding at the CRC 2003 auction.

Remembering Karl Jesness and John Thomas

It's with the deepest of regrets that we announce the recent passing of two of our CRC members.

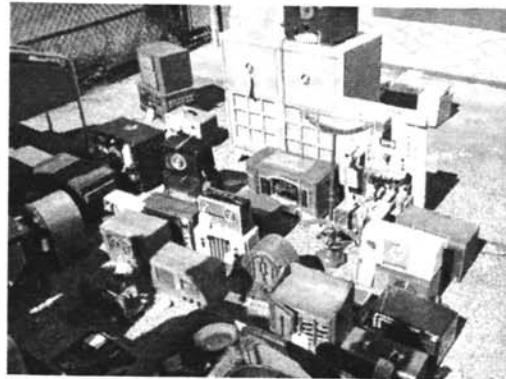
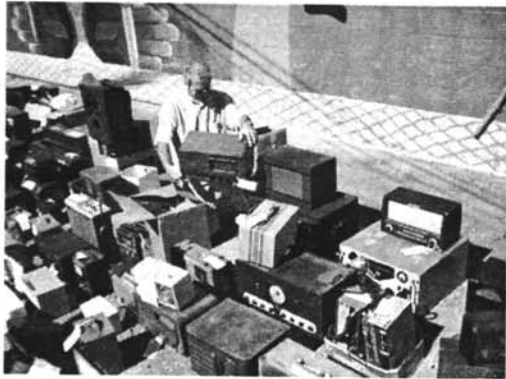
Some of you may already know that Karl Jesness, of Colorado Springs, died about two months ago. Karl joined the CRC in 2000. At that time Karl was retired. He had worked for Harris Corp. Quincy Illinois (they bought out Gates Crop) as a Field Engineer for about 15 years. He did checkout, training of locals, troubleshooting of problems and proof of performance testing. This included very large Broadcast and Short-Wave systems from 5Kw to 100Kw, and some were the new Stereo AM Transmitters of the 1980's. Karl traveled all over the Near East and Far Eastern parts of the world; Egypt, Afghanistan, Taiwan, Thailand, South West Africa in addition to many cities in the US. Karl had a BS in Physics from Concordia College Moorhead, Minnesota and was a Life Time Ham with AARL. His call was K0MGG. He had a large Technical Library estimated at about 25,000 volumes. He had about the same numbers of magazines. Karl was a man who had a "Thirst for Knowledge."

John Alan Thomas, Jr., 62 of Colorado Springs, CO, retired Satellite Systems Engineer for Lockheed Martin, Inc. died on September 24, 2003. John was born on April 17, 1941 in Rockford, IL. He graduated from East High School and served in the United States Air Force. John's passions included his love of Western American history and the restoration of old ham radios and antique clocks. He also enjoyed traveling during the 13 years that he and his family resided in Germany. John is survived by his wife of 36 years Zeda Thomas, daughter Nicole Thomas of Colorado Springs, and his two sons Sean Thomas of Colorado Springs and Michael Thomas of Denver. He also leaves behind his brother James Thomas of Rockford, IL.

We send our most sincerest condolences and prayers to Karl's and John's families

Next CRC Meeting - Nov. 9th - Museum of the Americas
863 Santa Fe - 1:00pm
Tailgate Sale After the Meeting in the Museum Courtyard

See the CRC 2003 Annual Auction Results on page 6



Colorado Radio Collectors
Antique Radio Club
417 S. Queen Cir.
Lakewood CO 80226

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