

The

FLASH!

The Newsletter of
The **Colorado Radio Collectors**
Antique Radio Club

Volume 33, Issue 5

Next CRC meeting - September 11th

Sept./Oct. 2022

July 10th CRC meeting notes

by Larry Snyder, CRC member and Flash Co-editor

In the July 10th meeting at the Littleton Bemis library, there were twenty-four club members in attendance plus 1 visitor: Herb Sanford.

Bill Lettow, who is also a member of the Arizona radio club, joined many others in thought-provoking discussions of what could be done to increase our club membership, improve our online presence, make e-mail transmissions between our members easier and more secure.

Mike Cook and Paul Heller, who have been seeking volunteers to takeover their positions for some time now, have mutually decided to switch positions in the club. Paul Heller is now the President and Mike Cook is now the new Vice-President. Paul Heller will continue his efforts to update our club website presence and will work with other club members to find ways to improve and simplify our e-mail system.

Merrill Campbell, who also has been seeking volunteers to takeover his position for some time now, has agreed to remain on as treasurer, but would like to pass the duties along to a new treasurer.

The annual BBQ and auction will be on September 18, 2022 at the Tectonic Management Group Facility located in Wheat Ridge near I-70 & Wadsworth as it has been for the past many, many years thanks to the continued efforts of Rich Kuberski.

Larry Weide has agreed, once again, to be in charge of the auction's computer and audio systems for this year only. We need someone to work with him to "learn the ropes" and take over for next year and beyond. Larry Weide indicated that he has simplified the computer system for the auction, but stressed that pre-registration of auction lots is very important to reduce the check-in line wait-times. *The pre-registration form is on page 4 of this issue.*

Bill Busch & Larry Snyder will handle the cooking duties, with Bill flippin' the burgers and Larry assisting with the serving line.

Wayne Russet agreed to bring the non-perishable items and Larry Snyder will bring the perishable items. Don Andrus is bringing the soft drinks and ice for same.

As always, we seek new articles for the Flash. Please let us know how we may help to get your latest radio related work published in the Flash. (the editors)



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Newsletter for The **Colorado Radio Collectors** club, founded in the Fall of 1988.

"Dedicated to the preservation and education of wireless, antique radio, television and associated equipment."

CRC MEETINGS: Meetings are held on the 2nd Sunday of every other month starting in January (except May is the 3rd Sunday) at 1:00 pm. The meetings consist of business, "show & tell", raffles, auctions, swap meets, technical discussions and other subjects of interest. Visitors are welcome!!

CRC MEMBERSHIP: Current annual dues are \$20 and membership in the CRC runs from July to June. New memberships will be prorated to the following June. Members are entitled to attend meetings, participate in our Spring show and our Fall auction, and receive our newsletter, **The Flash!**. Submit dues payable to: **Merril Campbell - 4723 Woodbury Dr. - Colorado Springs, CO 80915**

UPCOMING EVENTS: September 11th, CRC club meeting. The 1 PM meeting location is at the Philip Miller library in Castle Rock. The CRC Auction is on September 18th at Tectonic Management Group, Inc., 6695 W 48th Ave, Wheat Ridge, CO 80033. Details follow in the Flash.

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MESSAGE FROM THE PRESIDENT

It is a pleasure to write this first message as your new club president. I'd like to thank Mike Cook for all he has done for our club, and I hope I can live up to the high bar he has set. Fortunately, he will be there to help me because we actually switched our roles, so Mike is now our club vice president.

Our club is in good shape financially and that is because you, our members, pay dues. Thank you for that. Please consider renewing your membership and staying with our club. We've certainly had our setbacks due to Covid-19, and it is understandable that some of you remain uncomfortable with coming to indoor meetings. Please know that our club will be here for you when you are able to join us again at our meetings. Fortunately, thanks to the hard work of Steve Touzalin and Larry Snyder, we have the Flash newsletter to keep everyone up to date on club happenings. For those who can venture out, our next meeting is September 11 at the Miller Library in Castle Rock.

A lot is happening in our club in September, but most exciting is our annual auction. It's always a fun event. You can read about it in this issue. I hope to see you there!

Paul

THE CRC 2022 ANNUAL AUCTION DETAILS!

Once again, through the efforts of club member Rich Kuberski, we are privileged to hold our annual auction in a park-like setting. In addition, we will also be continuing our tradition of combining the auction with a pot luck BarBQ.

The club will provide the burgers, hot-dogs, condiments, chips and soft drinks while the members bring side dishes to share with all. Family members are encouraged to attend!!!

WHAT: An auction of radios, televisions, documentation, parts, test equipment and associated items. The public is encouraged to participate in **both** buying and selling.

WHEN: Sunday, September 18th

Seller's Registration: Sellers need to pre-register --
-- see included registration form.

Buyer's Registration: 10:00am until 11:15

Viewing: As items are delivered

Auction Starts at 12:00 noon SHARP

BarBQ Lunch Served 10:30am - 11:30 am

Bring a side dish to share with everyone;

Slaw, Potato Salad, Fruit Salad, Desserts, Chips, Beans, Your favorite recipe, etc.

WHERE: Tectonic Management Group Inc. Office grounds and picnic facilities (see map on the bottom of this page).

AUCTION RULES:

There is no cost to register as a buyer or seller. **If you are a seller, your seller number is also your buyers number.** There is a sellers commission that will be equal to \$1 or 10% (which ever is greater) of the "hammer" price on each lot sold to any buyer - including the sellers who may elect to "buy back" their lots.

Minimum value of each lot to be \$5.00

Sellers may optionally, **at registration time only**, set a secret minimum bid (reserve) on any lot.

No commission will be incurred on any lot that is not sold. All seller commissions will be deducted from and before the payment to the seller, and these commissions will become the property of the C.R.C. treasury.

Buyers can **not** take possession of any lot(s) until the total cost for all purchases are paid. Collection of buyers fees will commence at the conclusion of the sale of the last lot entered into the auction. A buyer's receipt is required for pickup of purchased lots from the lot/item display area.

Buyer fees will be collected before sellers are paid. The C.R.C. only accepts CASH or CHECKS. Identification may be requested from those paying for their purchases by personal check.

* Sellers will be paid only by C.R.C. check and may for a \$1.00 surcharge, elect to be paid by mail.

* This auction is limited to radio and electronics related items as described above. The CRC reserves the right to reject items deemed inappropriate.

* Any item registered for sale by auction may not be sold outside of the auctioneer's control, and can not be removed from the sale once the auction commences.

SELLERS: Please pre-register your items with Larry.

Send your information to him at

lweide@msn.com

No item will be accepted for registration after 11:15 on the day of the sale.



CRC AUCTION SELLERS

Be prepared for the 2022 CRC Annual Auction on Sunday, September 18th. Pre-register by filling out this form and email it to [Larry Weide](mailto:lweide@msn.com), plain text in an email is also fine. Or fill out this form and bring it to the September 11th CRC meeting. If you plan to sell items in the auction, you **MUST** pre-register them! Please send your form to Larry Weide **NO LATER** than September 11th. Please send your email registration information to: lweide@msn.com

Seller's Contact Information

Name _____ Phone _____
 Address, State, and Zip _____
 email address _____

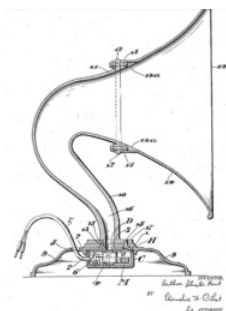
Sellers - you MUST pre-register your sale items!!

	Name/Brand	Model or Description	Year	Reserve (optional)	Donation? Check if yes.
1	_____	_____	_____	_____	<input type="checkbox"/>
2	_____	_____	_____	_____	<input type="checkbox"/>
3	_____	_____	_____	_____	<input type="checkbox"/>
4	_____	_____	_____	_____	<input type="checkbox"/>
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14	_____	_____	_____	_____	<input type="checkbox"/>
15	_____	_____	_____	_____	<input type="checkbox"/>
16	_____	_____	_____	_____	<input type="checkbox"/>

Use a separate sheet for additional items.

Complete auction details are on the CRC website:

<https://coloradoradiocollectors.com/CRC2/index.php/events/club-auction>



MODEL "L"

Part No.	Description
4251	Diaphragm
4252	Diaphragm Gasket
4254	Diaphragm Adjusting Spring
4259	9 ft. Cord
4632	Reproducer Housing
4642	Horn (Gooseneck)
4648	Bell
4649	Bell Holding Screw
4887	Reproducer Housing Screws
4934	Base Pad (Felt)
7573	Diaphragm Washer (Steel)
7578	Magnet Housing Assembly less Cord
7580	Base Assembly
7876	Base only
7882	Sound Unit complete



Repairing a broken Atwater Kent Model L speaker

by Larry Snyder, CRC co-editor

In pre-1925 radios and crystal sets, earphones were used to convert the variations in electrical energy to sound waves. In order that more than one person may listen to the radio at the same time, it was necessary to use a loud speaker. In 1925-1926 Atwater Kent started manufacturing radios with loud speakers as complete units. Two of the initial speakers were the Model L, part No. 4645 and the Model M, part No. 4460 introduced in 1925. The initial price for the Model L was \$15.00. December 1926 magazine ads in *The Ladies Home Journal* and *House & Garden* show the Model L selling for \$16.00.

Not long after the Model L was introduced Atwater Kent produced the Models G, H, and R speakers. An Atwater Kent Radio Dealer Bulletin of 1926 shows the Model G, H, & L speakers on the same page and lists the Model L for \$17.00. They were similar in construction, but different sizes and finishes.

The Model L is a less expensive version of the Model M with major differences. The Model L is 19" tall; the Model M is 24" tall. Other distinctions are the Model L reproducer housing is pot metal, instead of steel, as used in the Model M and the Model L carried the horn around the outside of the reproducer's output pipe. (See the sketch at the right)

Definition: The reproducer is the device that converts the current fluctuations on the plate of the audio power tube into sound waves that we can hear when amplified by the shape of the horn & bell of the speaker assembly.

Important specifications of the Model L are:

The steel bell is 14.5" in diameter,

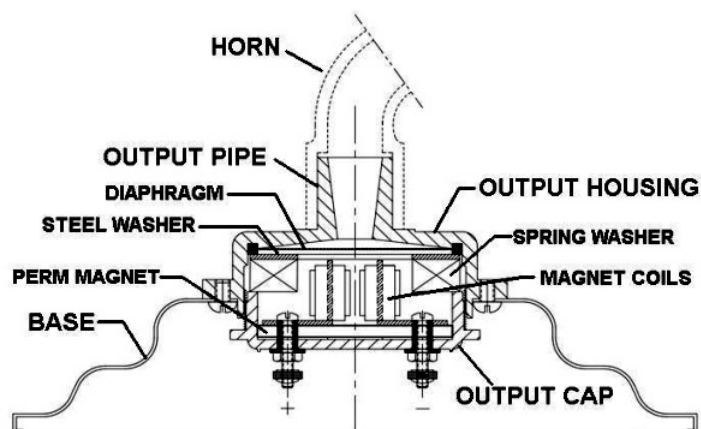
The steel base is 8.5" in diameter,

The horn, or goose neck, is cast iron. The total weight of the horn & bell is 6 lbs.

The reproducer output housing and output cap are pot metal.



The Model L Speaker



View of the original reproducer housing attached to the base of the speaker

Pot metal is a mixture of different metals that was widely used in casting tuning condenser frames, dial drums, housings, pulleys, etc. for many radio manufacturers during the 1920's and 30's. It was also used in the automobile industry during that era, and for years beyond. Zinc, lead, aluminum, tin, and copper are common ingredients of the non-magnetic, electrically conductive alloy, but their proportions in the mix were not well defined or controlled.

Pot metal does not always age well. It tends to self-destruct by becoming distorted, swollen, and cracked over the years...even when not in use. Some parts break apart, or crumble, on their own. Visual inspection of the damaged parts gives me the impression that the metallurgical grain structure of the alloy is changing with the grains growing extremely slowly, but at different rates than others, causing slippage at the grain boundary interfaces. The cracks are structural weaknesses which lead to brittleness. The distortions caused the parts to not fit properly, or to mis-align. Such parts are unusable.

An example is the Model L reproducer housing shown below, where distortions caused getting the unit apart to be impossible, without breaking-off the bottom threaded portion of the housing where the output cap is screwed in. The cracks also allowed the output pipe to break off the reproducer, where it joined the output housing, as seen at the extreme left. The housing and cap were more than 1/8 of an inch out-of-round and no longer came even close to allowing re-assembly. Possibly, these parts are not even from the same speaker.

At the CRC in-person meeting on November 14, 2021, I picked up this Model L speaker with the base, horn, and bell from the raffle table for the price of a \$1.00 ticket. It was completely disassembled in a cardboard box with 5 magnet coils, 2 diaphragms, 1 permanent magnet, 4 brass terminal screws with assorted insulating sleeves & washers, brass hex nuts and knurled thumb nuts. Three of the five magnet coils were open, and the two shown in the photo below had their resistances marked on them. I concluded there were too many parts to all be from the same speaker, but I enjoyed figuring the puzzle out.



The output housing
Cracked with the output pipe
& mounting tab broken off

The output cap
was distorted with cracks
and pieces broken out of the
grip ring



The housing & cap shown at
the top with the broken-off
threaded portions of the
housing shown below

The Repair

My next step was to determine how I was going to repair the broken and unusable output housing. After all, Model L reproducer parts are not available from Atwater Kent and any surviving pot metal parts that I might find would most likely be in the same non-functional condition.

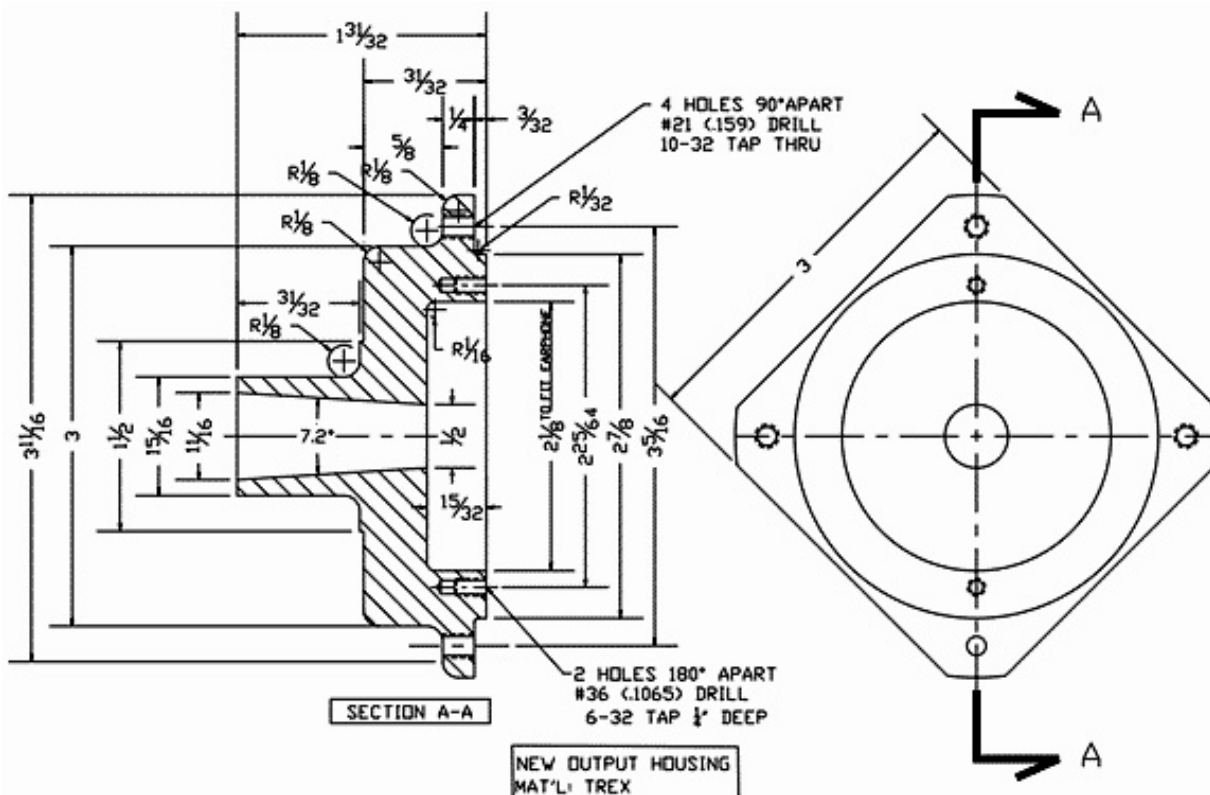
I concluded this was not going to be a “museum quality” restoration but a replacement of parts that would allow the base, horn, and bell to be assembled so it could stand upright on a table and function again as a speaker, as it did in 1925. The new reproducer parts will be “under the hood” so-to-speak, so the outward appearance of the speaker will be maintained.

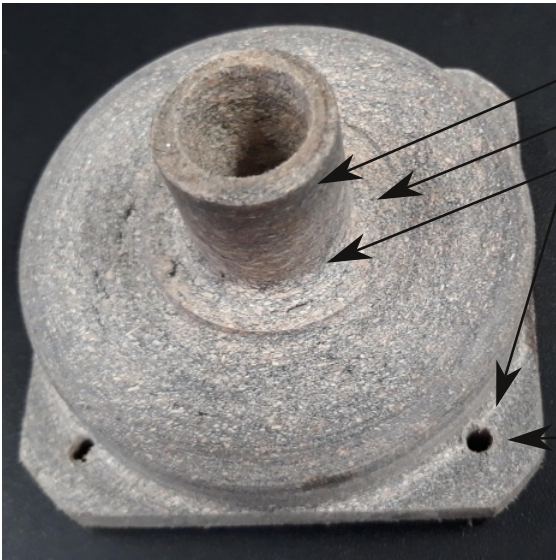
After taking measurements, I decided I would make a new output housing with the output pipe. Searching through materials I had at hand I opted to make the output housing from Trex, which is a composite plastic-wood-aluminum material used to make my outdoor deck more than 15-20 years ago. Trex cuts easily like wood and can be drilled, tapped, nailed without splitting, and is dimensionally stable. When the housing is stained it resembles the wrinkled appearance of the metal speaker parts. The photo at the right shows initial turning of the new housing in the lathe.



Because an original pot metal mounting tab broke off, and others cracked when the speaker was dropped or mishandled, I made the new tabs stronger with a wider base and generous radius in the corner.

A drawing of the new output housing is below.





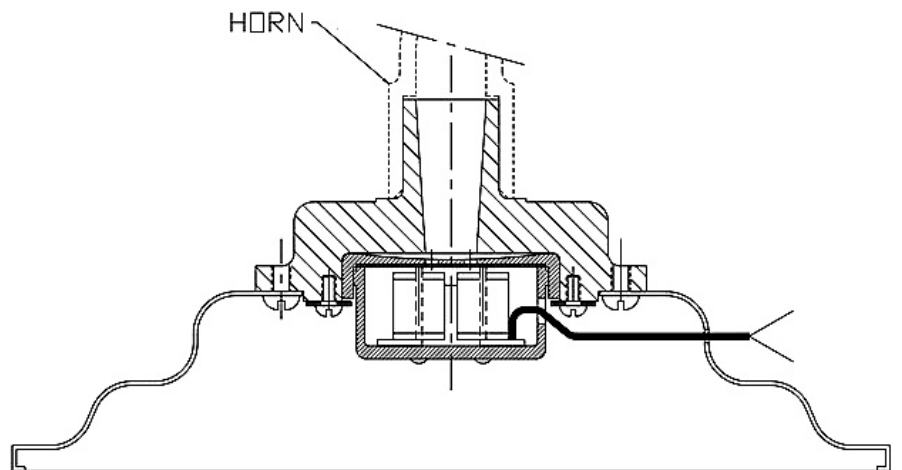
The horn of the speaker slips over, and is free to rotate on the outside of the output pipe with the weight of the horn & bell resting on the shoulder. A radius was added in the corners of the shoulders to reduce bending stresses which are present during handling of the assembled speaker.

When the speaker is just sitting on the table and not being handled the 6 lb. weight of the horn & bell are in-line with the center of the output pipe and no bending stresses occur.

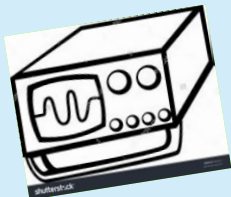
— Mounting tabs

The new output housing & output pipe are shown to the left before staining and finishing

The earphones of a modern 2000 ohm, high impedance headset shown on the right, have similar internal components as the original reproducer in the Model L. So I used one earpiece as the replacement reproducer for this restoration, and it works well. An earphone from any 2000 ohm high-impedance headset from the 1920's to the present could be used if the 2 1/8 diameter in the housing is changed to fit.



Views of the replacement housing and earpiece in the base of the speaker.



Classified Ads



Ads are free for CRC members. To place an ad send your ad description along with personal contact information to Steve at stevetou@comcast.net or Larry at Lsnyder200@cs.com.

FOR SALE:

Starting to gradually sell off restored radios from my extensive collection to club members and friends. Prices are very reasonable and will gladly negotiate. Range from the early 1920's to mid 1950's. Mostly wood radios from the 1930's...my favorite styles!
David Boyle
Castle Rock Area
email: djboylesr@msn.com

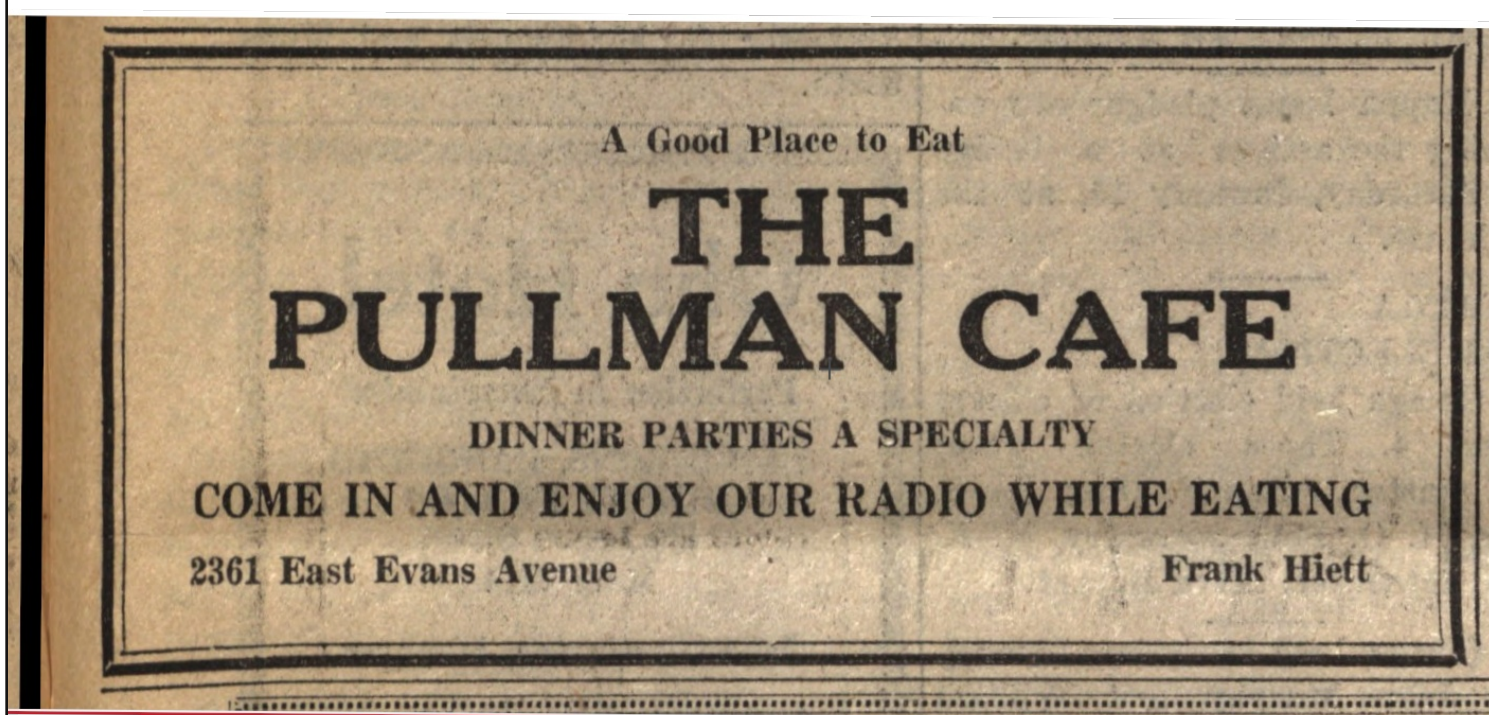
FOR SALE:

Tube Radios - Tombstone, Cathedral and Novelty Transistor Radios.
I have collected radios of all types for 35 plus years and now it is time to let them go to new home/s. I have over 250 tube type and over 5,000 transistor (both novelty and shirt pocket type)
Please call 303-2381384
radios4us@aol.com
Thank You, Ron Smith

REPAIR SERVICE:

Radio repairs for club members. Reasonable rates. Good references.

Call David Boyle 303-681-3258

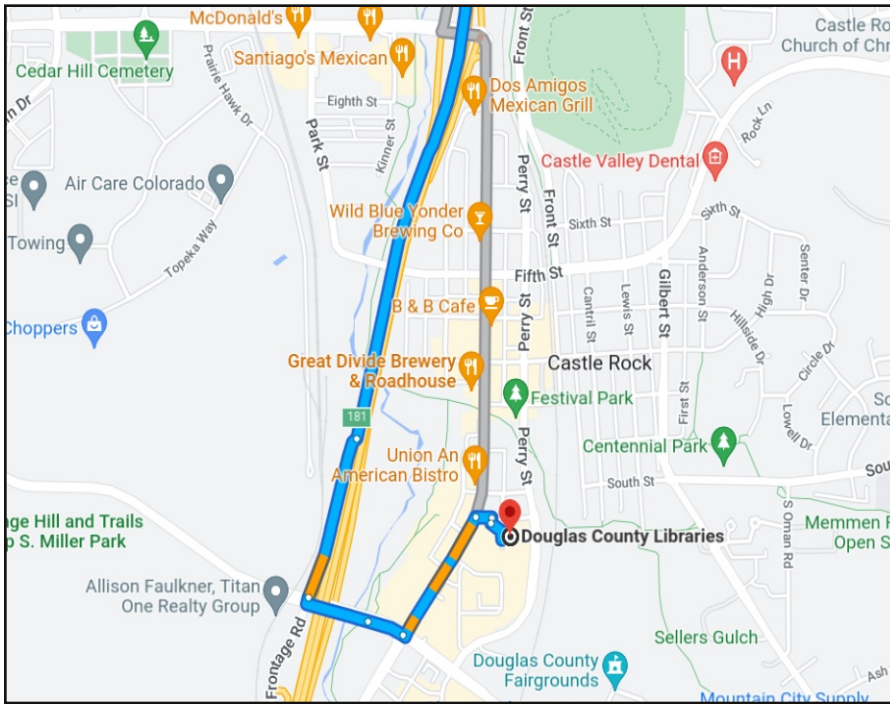


Source: The Denver Clarion - University of Denver, Volume 32,
Number 15, January 12, 1928

SUBMISSION OF ARTICLES & AND ADVERTISEMENTS

Classified Ads and articles of any radio/electronic or historical related subject to be published in The Flash! are encouraged and welcomed. The article(s) should be submitted in Microsoft Word, OpenOffice, RTF, or as plain text, to Steve Touzalin by email at: stevetou@comcast.net or Larry Snyder at Lsnyder200@cs.com or by postal mail to 417 So. Queen Circle, Lakewood CO 80226. Formatting isn't necessary as it won't transfer into our software, but if you do, set the font to Times New Roman, size 10, left justified. If you have graphics (.jpg files) to be inserted, please name them and be specific about how you would like them placed. We will do our best based on space limitations.

CRC Meeting September 11th at 1:00 PM



Directions to Miller Library in Castle Rock:

From I-25: Take the Plum Creek Parkway, exit #181. Turn East onto Plum Creek Parkway. Turn Left (North) onto S. Wilcox Street and continue north 2-tenths of a mile. The Philip S. Miller Library is on the east side of the street at 100 S. Wilcox St. The building is towards the back of the parking lot, past the Dairy Queen .

Mark your calendar: September 18th.

Location: Tectonic Management Group, Inc. 6695 W 48th Ave, Wheat Ridge, CO
Full details along with a map are on page 3 of this issue of the Flash.

AUCTION

&

BBQ



At the time this issue of the Flash was completed, there was MAJOR road construction on Wadsworth Blvd. from 38th Avenue to 48th Avenue. While there is no way to know the road conditions on Wadsworth on September 18th, using 44th Avenue to Pierce and then north may be a better entry route. (illustrated by the small red arrows on the map on page 3. -editors)

