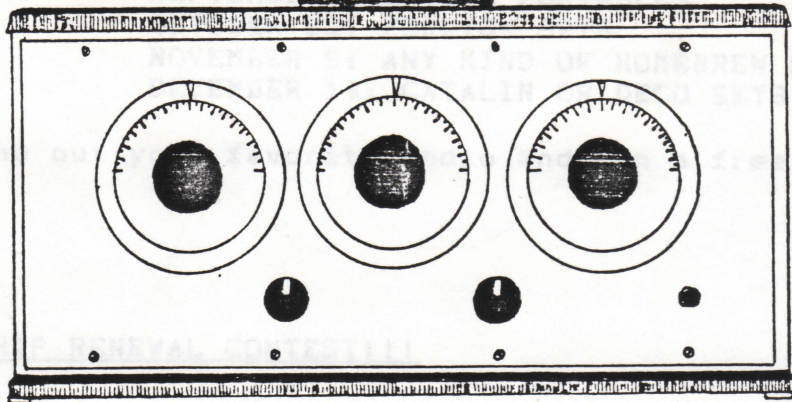
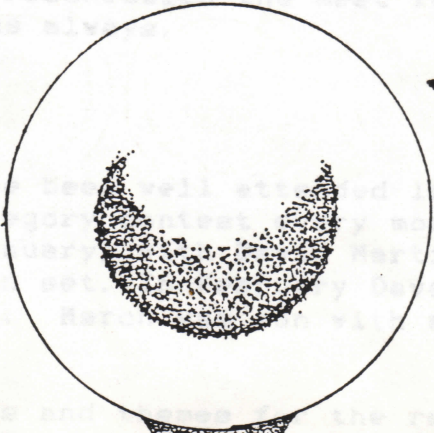


# S.A.R.S.



NEWSLETTER 1ST Q 1993

SPRING MEET

Well that's the last time we let Charles Pierce pick the date for our sweep meet. About the snow I didn't think they could keep us from coming out for radio that we have reached the meet for MAY 2nd be at place as early as possible.

CLUB MEETINGS

The meetings have been well attended lately with the addition of the radio category. We had some nice cathedrals in January and then in winning with a nice Jackson Bell Sweep set. One Fleiter von with a nice Federal set. Had a nice RCA tombstone.

The meeting dates and the rest of the year are:

- APRIL 13: 10:00 AM SETS OLD OR NEW
- MAY 11: 2:00 PM
- JUNE 8: 10:00 AM
- JULY 13: 10:00 AM
- AUGUST 10: 10:00 AM
- SEPTEMBER 14: 10:00 AM
- OCTOBER 12: 10:00 AM
- NOVEMBER 9: 10:00 AM
- DECEMBER 7: 10:00 AM

The reason contact was not by John Caldwell of Marietta. Congratulations John and we hope you are enjoying the calendar. There are still a few of you that we haven't heard from yet and this will be the last newsletter you will get before we drop you from the mailing list.

SEND THOSE DUES IN AS SOON AS POSSIBLE. PLEASE MAKE CHECKS PAYABLE TO: CHARLES PIERCE

4386 E. OAKHAVEN DR.  
ATLANTA, GA 30316



SARS NEWSLETTER 1ST QUARTER 1993

SPRING MEET

Well that's the last time we let Charles Pierce pick the date for our swap meet. Talk about some snow! I didn't think anything could keep me from getting out for radios but that did it. We have rescheduled the meet for MAY 8. It will be at the same place as always.

CLUB MEETINGS

The meetings have been well attended lately with the addition of the radio category contest every month. We had some nice cathedrals in January, with David Martin winning with a nice Jackson Bell Swan set. In February Dave McClellan won with a nice Federal set. March was won with a nice RCA tombstone.

The meeting dates and themes for the rest of the year are:

APRIL 13: CRYSTAL SETS OLD OR NEW  
MAY 11: BAKELITE  
JUNE 8: NOVELTY  
JULY 13: SMALL WOODEN SETS  
AUGUST 10: TRANSISTOR  
SEPTEMBER 14: TUBE PORTABLES  
OCTOBER 12: FOREIGN SETS  
NOVEMBER 9: ANY KIND OF HOMEBREW SET  
DECEMBER 14: CATALIN OR DECO SETS

So bring out your favorite radio and win a free meal.

MEMBERSHIP RENEWAL CONTEST!!!

The renewal contest was won by John Caldwell of Marietta. Congratulation John and we hope you are enjoying the calendar. There are still a few of you that we haven't heard from yet and this will be the last newsletter you will get before we drop you from the maillist.

SEND THOSE DUES IN AS SOON AS POSSIBLE. PLEASE MAKE CHECKS

PAYABLE TO: CHARLES PIERCE

4380 E. BROOKHAVEN DR.  
ATLANTA, GA 30319



SE AWA MEET

The AWA meet at Monroe, NC was attended again this year by a group of us from Georgia. We were looking forward to this meet due to the fact that ours was ruined by the weather. They continued the practice of not allowing anyone to set up before noon on the day of the meet so as to be "fair". This I suppose is the first politically correct meet. I can't wait until they make every one divide up their money equally among each other so that it will be fair to all. OK I'll get off my soapbox now and tell you that the meet also suffered from the weather. Rain this time and even though this meet is under cover it still caused what I estimate probably a 40% drop off in attendance. Saturday is usually the best day but this time a lot of people left on Friday and did not return and many just did not come due to the forecast of heavy rains on Saturday. Still with all of this there were about 30 to 35 set-ups and everyone who went came home with something they were looking for. I was happy to find a General Television brand Grand Piano style tube novelty radio. Charles Pierce found a Atwater-Kent WD-11 tube Socket for a breadboard. Johnny Hubbard found some nice little midget sets including one of the Emerson AX-212 sets with a cabinet by Ingraham. The Friday night open house at Robert Lozier's house again this year is a real treat. If you have never seen his collection then you are missing out on something. I heard him tell someone that he has somewhere between 725 and 775 sets. He has a great set-up where he can switch between speakers that are playing and broadcast vintage music to any set he chooses.

MEMBERSHIP RENEWAL CONTINUED

The renewal contact was sent by John Caldwell of Charlotte. Congratulations John and we hope you are enjoying the calendar. There are still a few of you that we haven't heard from yet and this will be the last newsletter you will get before we drop you from the mailing. SEND THOSE DUES IN AS SOON AS POSSIBLE. PLEASE MAKE CHECKS PAYABLE TO CHARLES PIERCE 4366 E. BROOKHAVEN DR. ATLANTA GA 30319



# ANTIQUE RADIO

## REVIEW OF VINTAGE RADIO CIRCUITS

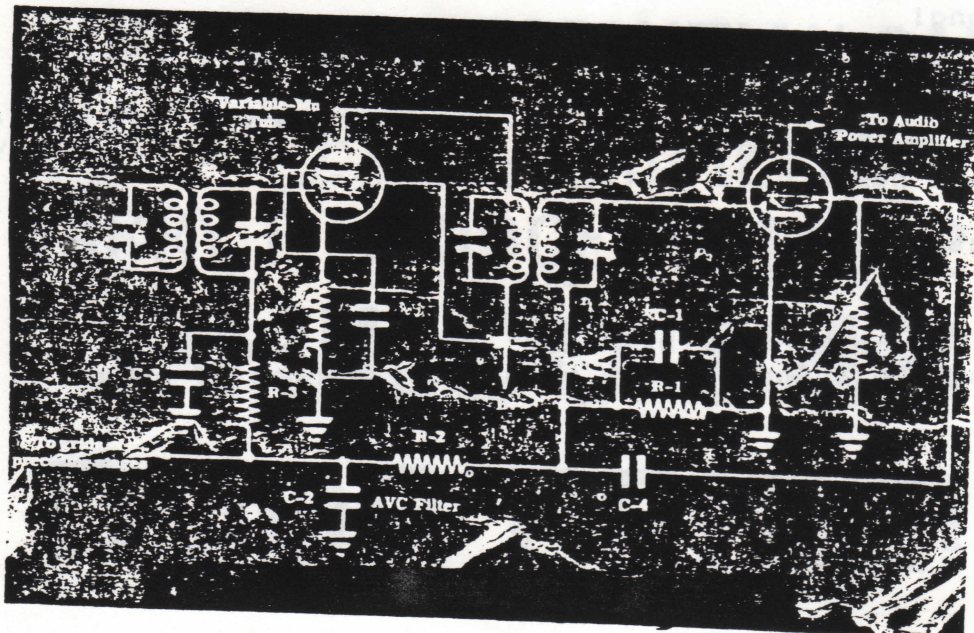
### Automatic Volume Control

This is a basic article on how Automatic Volume Control or AVC works. We will not go into the history or who invented this circuit but we will go into depth with this using a no-nonsense method. It's called being down to earth.

Many people can recall when operating an early TRF or superheterodyne receiver that listening to distant stations would fade in and out due to atmospheric conditions and naturally they would be constantly adjusting the volume control which of course takes the enjoyment out of listening to a Chicago Cubs game or whatever. Also the varying strengths of stations would again cause the listener to take to the volume control.

Fortunately these problems were solved with the introduction of AVC or Automatic Volume Control. This type of circuit provides automatic volume adjustment depending upon the strength of the signal. Did you know that the principles that apply to this subject also apply to AGC (automatic gain control), AFC (automatic Frequency Control) and audio compression-expansion and even noise reduction? This is also the basis of the "magic eye" tuning indicator that graced many a console set.

Lets refer to the diagram below...





There are two primary sections that comprise the AVC circuit. These are the Detector and the IF amp sections. So lets take this one step at a time.

1. The secondary of the IF transformer and where R1 and C1 connect together is where it all begins. The signal that appears here is an audio signal with a negative DC voltage present. R1 is a load resistor and C1 is a bypass to ground.
2. This signal that we find interesting splits off into two paths, one goes thru a coupling capacitor that goes to the audio amp stage and then we see that it goes as well into R2 and C2.
3. R2 and C2 make up a filter circuit which filters out the audio and C2 smooths out the ripple in the negative voltage. You know that this is not any different than the typical power supply for a radio. You rectify an ac signal and then filter it to get a usable dc voltage.
4. This voltage is now sent to the grids of the IF amp stages, the tubes used in these are variable mu. This means that the tubes vary their gain when a negative voltage is presented to it. So when a large negative voltage is generated from the detector stage and fed to the IF amp, the gain goes down and when the detector stage presents a small negative voltage to the IF stage, the gain increases.

So this is what AVC is in a nutshell. This was presented as a starting point so you can further your own study. If you think about this, this is a feed back loop of a sort. Shades of Armstrong!

For further reading:

RCA receiving tube manual

This book has a good section on tube theory

Basic Electronics by Rider

A very good book. If you can find it.

Automatic Volume Control by Rider

One of the An hour a day with Ryder series of books.



**ANTIQUE RADIO  
SWAP MEET  
SATURDAY 8AM  
MAY 8th  
MARIETTA, GA  
SEWELL PARK**

**I-75 TO EXIT 112, EAST ON 120 TO  
2ND LIGHT, RIGHT ON LOWER ROSWELL  
TO SEWELL PARK ON LEFT**

**FOR MORE INFORMATION CALL  
CHARLES PIERCE 404/233-1340  
OR BARRY ETHRIDGE 404/562-3052**

**PHILCO 84B  
DOOR PRIZE!!!**