

# SOUND MAKES



# FROM THE PRESIDENT

By Jim Sargent

This January issue always allows me the opportunity to say thanks to all those who have supported our organization over the past year. I reflect with great pride that our monthly meetings were all well attended. No small factor here is the exceptional job that Mike Grimes has done with solicit-

ing, selecting, and organizing meeting topics. Thanks, Mike! And thanks to all those who volunteer their time to research and put together a topic for one of these meetings. Speaking of volunteers, I say this often, but maybe not to the right people, volunteers are us. None of us are paid. This is a labor of love. From Randy and Jeannine, who put this publication together, to all the Directors who give of their time to meet and plan so events go smoothly when we all gather, whether for meetings, auctions, swap meets, or repair sessions. Elsewhere in this issue is a list of the current board of Directors. Make note of them, and next time you see one in action, tell them thanks.

In case I have forgotten my manners and did not personally say "welcome", we have 22 members who are new to us, having joined sometime along the way in 2011. Welcome, and please do not be afraid to roll up your sleeves and become a volunteer as well. Long time member or new to us, we want your input... no, we need your input. We relish your suggestions and comments. We could really be missing an opportunity and not even know it. Pass yours along.

One last look at 2011 takes me back only a few weeks to early December. Our annual Christmas party was another really good time. We tried to recount how many "annual Christmas parties" there have actually been, but no one knew. But, food, friends, fun....that would summarize all of the 20+ I have attended. 55 folks attended the latest one; next year your attendance can help make it 60+. Back to that volunteer thing, Wanda and Cleo took the reigns again this year and did a masterful job of putting together this great event. A special thanks to both of you.

As the cold winds of December and January begin to swirl in north Texas, I suspect the cold temperatures will allow me more time indoors this winter, time I hope will find me repairing a few more old radios. I so look forward to that. Until next time good hunting.

SOUND WAVES

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## NOTES FROM THE BENCH

REPAIR OF MECHANICAL RADIO TUNING VERNIERS

By Mike Grimes and Cleo Cherryholmes

Many higher quality vintage radios, including AK, RCA, Philco (and others), have utilized a mechanical vernier for more precise control in tuning a radio station. One arrangement includes a ball bearing drive reduction system with a shaft within a shaft. The outer shaft functions as a coarse adjustment whereas the inner shaft functions as a fine adjustment. The inner shaft extends beyond the outer to allow a small knob and the outer shaft accommodates a larger knob, both appearing in the same plane. Typically, the outer shaft is 0.375 inch O.D. and the inner shaft is 0.25 inch O.D.

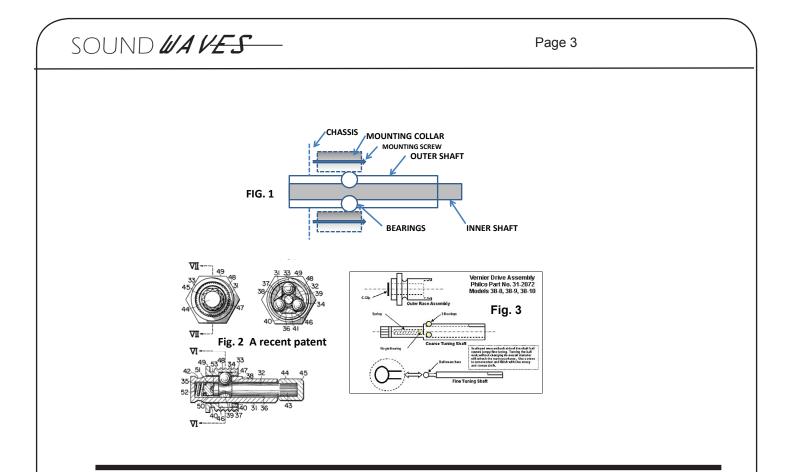
The mechanics of this vernier has a turning ratio of about 6:1. The design is quite clever. Three ball bearings ride inside three holes cut in the outer shaft and the bearings are made to press against the inner shaft (see Fig.1). A section of the inner shaft radius is reduced to make a path to accommodate the bearings. A mounting collar fits over the outer shaft and pushes against these bearings. The bearings in turn now push against the inner shaft small radius path. The rotation of the inner shaft moves the ball bearings as if they were a larger diameter wheel addressing the outer shaft. This is a friction drive allowing clutch action and behaves as if it were belt driven.

Common problems include "freezing" of the inner and outer shaft. The two shafts turn together as if they are not independent. You may think this action is normal, but it is not. This is usually caused by debris, solidified grease or metal oxide clogging the clearance between the shafts and/or the bearings. Also sometimes the inner shaft will not stay locked inside the outer shaft or slips excessively.

We have had good luck using "Liquid Wrench" penetrating oil by applying it in a vertical direction such that it will "penetrate" the two shafts. It may be necessary to remove the total mechanism from the radio and working it with the knobs. If this does not free the two, hold one with vice grips and force slight turning of the two independently. Allow the penetrating oil to do its job over night before proceeding. Be careful not to scar or warp the shafts with the vice grip. Using cloth or cardboard between the gripping jaws and the shaft helps. Once they are loose, work the shafts and clean with plenty of penetrating oil. When you are satisfied with movement, clean, lubricate and reinstall.

Another problem that may occur involves failure of the inner shaft to stay in place or excessive slippage during the vernier action. Over time the bearings can wear a "trace" path in the mount-ing collar. This can cause the bearings to loosen and lower the frictional drive. It can become so severe that the bearings will not hold the inner shaft in place. One correction is to move the bearing "trace" slightly by adjusting the collar. The collar can be moved slightly by use of thin washers (see Fig. 1) between the chassis and the mounting collar. This will off-set and make a new "trace" and will hold the bearings tighter against the inner shaft and increase the friction action of the bearings against the outer shaft.

There are several other configurations of this vernier. Figs. 2 and 3 show variations for comparison. The one described here is the most common we have encountered. There are several discussions of this problem on the internet; see www.philcorepairbench.com/tips and others.



MARY ANN CARUTH SUGGESTED THAT WE ADD A SPOT FOR OUR HUNGRY CLUB MEMBERS. WE THOUGHT WE WOULD TRY THIS WITH "RECIPES FROM THE BENCH"

#### CRANBERRY SALAD

1 package fresh cranberries, rinsed 3/4 cup chopped pecans 1 - 1 1/2 fresh orange fresh lemon juice (optional) sugar to taste (1/2 - 3/4 cup)

Grind the cranberries in a manual grinder (she said a blender made them too mushy) and mix with the rest of the ingredients.



#### POTATOES WITH SESAME SEEDS

(Til ke aloo) 2 lbs potatoes 6 T vegetable oil 2 t whole cumin seeds 2 t whole black mustard seeds 2 T whole sesame seeds 2 t salt 1/8 to 1/2 t cayenne pepper 1 T lemon juice

Boil the potatoes in their jackets. Drain and cool until firm. Peel the potatoes and dice them into 3/4 inch cubes. Heat the oil in a large non-stick skillet over a medium flame. When the oil is very hot, put in the cumin seeds, mustard seeds, and sesame seeds. As soon as the seeds begin to pop (a few seconds) put in the diced potatoes. Stir and fry the potatoes for 5 minutes. Add the salt, cayenne and lemon juice. Stir and fry another 3-4 minutes. sound *WAVES* 

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#### SARGENT AUCTION SERVICE PRESENTS ANOTHER GREAT RADIO/PHONOGRAPH AUCTION FEBRUARY 24 AND 25TH, 2012

Main Auction starts at 10 am CST each day Doors open for viewing at 8:30 am each day

On the campus of the Boles Children's Home 7065 Love

Quinlan, TX 75474-4609

All proceeds from this sale will benefit the Arms of Hope, Inc., in support of the Boles and Medina Children's Homes. A generous donor has given for auction over 500 radios, speakers, radio signs, and other miscellaneous items. This will be a really super auction. The donor has been buying and storing old radios since the 1980's and is not a member of any radio club. The vast majority are in original, as found condition, awaiting your restoration. Friday's sale will include many parts sets, sets in need of cosmetic restoration as well as complete sets. We will leave many of the better sets for Saturday's sale. However, please do not discount the opportunities that will be available on Friday. A live internet sale is planned for the Saturday auction only. Watch www.auctionzip. com for more information on the Internet sale details. Announcements made day of sale will take precedence.

A few pictures are already posted on **www.sargentauction.com** Terms: Cash, checks, VISA, MasterCard and Discover 10% buyers premium for all sales Sargent Auction Service Jim Sargent, Auctioneer, TX License 16135 Member NAA, TAA, AWA, VRPS, HVRA, ARRL, QCWA, MTC 200 Thomas Road Granbury, TX 76049-1921 Phone 972-742-8085 or email bsargent@swbell.net More information at www.sargentauction.com or www.armsofhope.org

# HOUSTON VINTAGE RADIO ASSOCIATION

33nd Annual Convention February 10 and 11, 2012 Houston Marriott North at Greenspoint 255 North Sam Houston Pkwy. East Reservations: 281-875-4000 1-800-228-9290

Three huge auctions- Featuring the Richard Collins collection Technical Sessions – Edwin Armstrong Regenerated (Bob Botto), High Voltage- Arcs and Sparks (David Herlinger), Converting AC Radios to Solid State (Ron Soyland) Old Equipment Contest - Featured Manufacturer is Admiral. Awards Banquet

Check HVRA website for photos and details:

www.hvra.org

SOUND **WAVES** 

### NOTES FROM THE OCTOBER 15, 2011 MEETING

Bill McKeown

Vice President Randy James conducted the meeting. He reminded us of the upcoming important events – our VRPS annual convention and our Christmas party, to be held at the Garden Arts center. Our program chairman Mike Grimes introduced our meeting topic –Remote Controls. He pointed out that their development was one of many "convenience factors" that manufacturers designed to cause more customers to buy their particular product. The chairside radio and combination table/radio were examples of convenience features. Remote controls were also being developed for other applications. Members brought a number of examples of remote controls and sales literature for them. Mike and Cleo Cherryholmes shared the presentation tasks.

Cleo discussed the interesting early history of remote controls in general. In 1898 Nikola Tesla invented a remote control and used it for steering a model boat in a garden pool. In 1932, a Spaniard, Cardeñas, patented a model airplane remote control.

Mike reminded us that there were many remote controls that used wires, such as flat ribbon cables that could be hidden under a carpet between your "easy chair" and the radio or TV. He described one type made by GM that used a remote 535 kc superhet arrangement providing remote tuning without any mechanical hardware (motors, etc.) in the receiver. The 2-tube circuit used B+ from the radio via the cable.

Cleo mentioned a 1933-34 Kadette radio that was a "re-broadcaster" type, having one tube in the transmitter. Mike showed a remote control for the 1939 "Mystery Control" offered by Philco for its high-end models. This "Gee-Whiz" convenience feature used a rather large remote unit that looks like it has a telephone dial on its face. This unit has a single tube and batteries and uses pulsed signals from the dial to control the radio tuning. The operating principle is fairly simple: as the dial is first advanced, a contact closure turns on the transmitter – signaling the radio to reset its selection to the first of all its positions. Then the pulses cause the radio to step the selection a number of times corresponding to the clockwise position occupied by the station call letters around the dial. Control of volume is also featured as well as a way to shut of the radio. But it must be manually turned back on. The radio itself has 12 tubes, and 4 are dedicated to decoding the remote control signals and operating the motor for station selection and volume control. The radio was manufactured through 1932 and appeared in "Topper" movies of the day.

Cleo stated that the very first TV remote control was a 1950 vintage wired system called "Lazy Bones". The first wireless system was the Zenith "Flash-matic" released in 1955 and only used for one year. It made use of a flash-light and four photo sensors placed around the screen on the front of the TV set. It had problems of adjustment and sensitivity to other light sources.

Mike demonstrated a photocell responding to a Zenith Flash-matic flashlight. In 1956 Zenith introduced their "Space-command" system, which used metal rods tuned to high frequencies. Pushing a button on the remote control causes one of the rods to be struck and the receiver discriminates which rod frequency has been struck to decode the command. The remote controls are called "clickers" because the frequency is ultrasonic, and only a clicking sound is heard.

Cleo said that Magnavox made a control using small bellows and whistles (see related author's note) and there were other acoustic schemes using sound generated by piezo materials.

In the '80s the modern system of remote controls using solid-state IR (Infra-red) LED's and sensors was developed by the Canadian company VIEWSTAR. They developed it for their cable-TV set-top converters.

Cleo showed a remote-control tester that checks to see that a signal is being generated. It detects the IR and checks battery current to see that pulses of current are being generated. Cleo said that the idea for the first Zenith control – the Flash-matic – was put forth by Eugene Polley, a stock boy at Zenith. He was given a \$1000 reward and earned the nickname "Zapper", which stuck to him the rest of his life.

Author's notes - One of the Philco Predicta TV models comes to mind as an application of a flat cable for remote control – a big, wide one!

Some friends had a new Magnavox TV that used the acoustic type of remote control. There was a chain of small brass bells hanging in a doorway, and anytime someone brushed by the bells, the TV would change channels.

All of the working details, schematics, etc. of the Philco Mystery Control can be found on the great website PhilcoRepairBench.com

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#### 2011 VRPS CONVENTION OLD EQUIPMENT CONTEST WINNERS

- 1. CRYSTAL RADIOS- Bob Diggs- Collection of 8 Pandora Radios in Different Colors
- 2. BATTERY RECEIVERS-PRE 1928 Bob Slagle- Thompson (Very Unusual Radio)
- 3. AC TABLE RADIOS-PRE WW2 Bob Slagle- Chronovox Clock Cathedral
- 4. AC/DC TUBE RADIOS David Spivey- Display of 5 Variations of Emerson 511
- 5. TRANSISTOR RADIOS-PRE 1965 Randy James- Mickey Mouse 2 Transistor Radio With Box
- 6. PHONOGRAPHS and RELATED ACCESSORIES PRE 1928 Mark Moss- RCA Storefront Record Display
- 7. LOUDSPEAKERS PRE 1930 Sam Luscomb- O'Neill LS-19 Illuminated Ship
- 8. MILITARY and AMATEUR RADIO EQUIPMENT Jim Sargent- Homebrew Spark Transmitter
- 9. NOVELTY RADIOS-TUBE or TRANSISTOR Mary Ann Caruth- Display of Book Radios
- 10. OPEN CATEGORY Eric Coon- RCA TRK-9 Television
- 11. ART DECO RADIOS Jim Sargent- Sentinel 284 Catalin
- 12. VACUUM TUBES These two entries were both awarded 1<sup>st</sup> place awards. Tom Burgess-X-Ray Tube Johnathan Edwards- Display of 240 Different Brand 201A Tubes With Boxes
- 13. RESTORATION CATEGORY Mike Grimes- Atwater-Kent 558 Cathedral
- 14. FOREIGN RADIOS (VACUUM TUBES ONLY) Randy James- Phillips French Radio
- 15. EARLY TUBE AUDIO PRE 1970 No Entries
- 16. NON-RADIOS WITH THE NAME "RADIO" ON THEM Dale Allen- Display of "Radio-Named" Items

I WOULD LIKE TO EXTEND MY APPRECIATION TO ALL WHO SERVED AS JUDGES IN THE CONTEST. THERE WERE MANY EXCELLENT ITEMS TO JUDGE BUT YOU HANDLED THIS DIFFICULT JOB WITH GREAT CARE.



BEST OF SHOW Eric Coon-Beautifully Restored RCA TRK-9 TV



FOUNDER'S AWARD Johnathan Edwards- Display of 240 Different Brands of 201A Tubes in Original Boxes



PEOPLE'S CHOICE AWARD Dale Allen-Amazingly Detailed Silver Radio Company Miniature Radio Store Built in a Radio Cabinet

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## SENDING MORSE BY CANDLE LIGHT

By Jim Sargent



SOUND WA VES

While collecting radios is my passion, since I was a young fellow I have enjoyed the challenge of Morse code. Well, actually my first challenge was the International Morse Code, or as ham operators call it, CW. I tackled and won that battle at age 14. It was not until the mid-90's that I was introduced to the "other" code, the original landline Morse Code. While there are similarities, the two are definitely different. That code was used for a hundred years by railroad and Western Union telegraphers throughout North America. Like most hobbies, there is an organization where folks like me want to get together to learn more and reminisce about the hobby. The Morse Telegraph Club, Inc. is headquar-

tered in Illinois, but has smaller regional groups that meet at various times of the year. Sadly, the local Texas group disbanded in 2011 because of the difficulty for the members (and declining numbers) to get together (a vast distance to cover).

The town of Granbury, Texas, has an annual event the first weekend of December they call the

Candle Light Tour. The tour includes numerous historical homes and buildings, including the Granbury train depot. Somehow word got out that there was a nut in town who actually had some of the equipment that was once the high tech communication link for the railroad and the telegrams sent in and out of Granbury. For the last three years I have been privileged to set up a working station at the depot and demonstrate the code and talk about the dying art of landline Morse to the many visitors. Part of that demonstration includes telegraph memorabilia spanning 50 years, from an 1890 crow's foot gravity cell battery to a 1940 rotary dial telephone. All items (except



the battery, because the need for a gallon jar of Sulfuric Acid with no lid would cause Ralph Nader to cringe) are working and demonstrated. One of my favorite demonstrations involves the rotary phone, a 300 baud dial-up modem, and a small homemade circuit board tied to the local telephone line. There are conference bridges around the country that folks like me can dial into using this arrangement. Yep, we get together to talk on the conference bridge... not with our voices, but rather with our fingers on a vibroplex key and sounder. What a hoot!! Now, just so you know, I am far from being proficient at landline Morse. I still consider myself a learner...but, there are lots of old timers who want to teach a young person the "mother" language. So, I listen a lot. If you are ever in Granbury on the first weekend of December make plans to take the tour. You will likely hear the clicking sound of dots and dashes if you pass the old Depot. Stop in and say hi. By the way, one of the most asked questions I get is, "how did you get into this hobby?" It allows me to work into the conversation that I am a member of another neat organization; one for collectors of old radios and phonographs.

# sound *WAVES*

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## FROM THE VP

#### By Randy James

I hope everyone had a great holiday season. Now that it's over we can get back to normal. As for radio collecting, this year is starting off with a bang. On February 10-11 the HVRA will be having their 33<sup>rd</sup> annual convention. Right after that, on February 24-25, Jim Sargent will be conducting a radio auction in Quinlan, Texas. On March 17 we will be having our annual Spring Auction in Irving. Whew, I'm already tired (but looking forward to these events)! Check out this issue for details.

Don't forget to check out our web page (<u>www.vrps.org</u>) on a regular basis for pictures and information from VRPS happenings. If you have problems accessing the roster contact Mike Grimes for help or contact me and I will mail a copy to you. Our contact information is available elsewhere in this issue.

Just a reminder-the dues are \$20.00 and always expire on November 1 of the current year. You can find your membership expiration date on the Soundwaves mailing label.

I need more pictures of you at your benches to run with the Notes From the Bench column. I have used all the ones I have. Come on, send em in and let everybody see where you perform your radio magic! Also, I really need you guys to send me articles for the Soundwaves and any suggestions you might have regarding the club- meeting topics, etc.

I hope to see many of you at the upcoming events! Until then,keep on truckin' and collectin'.



Bill Moore passed away on November 2, 2011. Bill, 79, was a longtime member of the Vintage Radio and Phonograph Society. He was very active in the Houston Vintage Radio Association

and served as their president in 1983. Bill was an adept radio repairer and especially liked working on Zenith radios. If he told you that a radio he offered in the auction was in working condition, you could rest assured that it worked well or he would make it right. Bill was a great guy and will be missed by all who knew him.

# **SPRING AUCTION**

PLEASE MAKE NOTE OF LOCATION MARCH 17, 2012 Senter East Building 228 Chamberlain St Irving, TX 75060 Doors open 6am. Auction begins at 10:00

NOTICE - We will have a trailerload of items donated to the club to auction off before the regular auction. This will consist of parts, radios, etc. and will start at 9:15 in the parking lot. Don't miss it!

# Sound *WAVES*

The Christmas party this year was a rousing success. Shortly after these pictures were taken the room was filled with fellow members and their families. As usual the dinner, made up of dishes brought by the attendees, was delicious and plentiful.A great time was had by all!











The annual Board of Directors meeting was held this year in Granbury at the home of Jim and Beverly Sargent. After checking out Jim's fabulous radio collection and soda fountain (complete with antique Wurlitzer juke box), we worked out the details for this year's club activities, while the ladies enjoyed Beverly's hospitality.





#### MONTHLY MEETING PROGRAMS

NOTE: Programs will be held at various locations in Irving, Texas. Make note of the location as they will change from time to time. Senter East, 228 Chamberlain St.; Garden and Arts, 906 S Senter Rd; and Heritage Park, 217 S. Main St.; will be the locations.. Refer to the WEB site. Programs start at 2pm. unless otherwise noted. Call us on the cell tellie if you get lost: 972-898-7251 or 972-742-8085.

#### JANUARY 21, 2012 Senter East Building

Interesting Potpourri: a variety presentation will be given including a tour of John Terrey's (ARC fame) Radio "Museum/Collection," TV tributes left over from Kurt Ehrlich's TV presentation and other items of interest. If you have something to add to the "winter mix," please bring it to show.

#### FEBRUARY 18, 2012 Garden and Arts Building

Automobile Radios have always been somewhat special. This program will cover auto radio from the early days to the more modern with circuit comparisons to "home" radio. If you have an auto radio that you would like to show or demo, please bring it to share.

MARCH 17, 2012 Senter East Building Spring Auction. Note the location. Doors open 6am.

Programs are subject to change, contingent on scheduling conflicts. As always, your suggestions for programs/ content are welcome. If the programs do not fit your needs and you want something different, let me know. I need volunteers to organize other programs, so consider presenting a program yourself. Call me anytime or send me an email. Mike Grimes 972-898-7251 (cell), or K5MLG@verizon.net.

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