

OFFICIAL JOURNAL

VOL. I

DEC., 1975

NO. 2

CALIFORNIA HISTORICAL RADIO SOCIETY



*No Wireless-Receiving
set complete without it*



CALIFORNIA HISTORICAL RADIO SOCIETY INC

635 Phelan Avenue
San Jose, CA. 95112

PRESIDENT: Norman Berge
VICE-PRESIDENT: Dave Brodie
VICE-PRESIDENT: Peter Brickey
SECRETARY & LEGAL COUNSEL: Eugene Rippen
TREASURER: James Cirner
HISTORIAN: Larry LaDuc, Jr.
JOURNAL EDITOR: Kenneth Miller

For membership correspondence address the Treasurer, James Cirner, 13366 Pastel Lane, Mt. View, CA. 94040. Articles and non-commercial ads for the journal should be submitted to the Editor, Kenneth Miller, 1950 Cooley Avenue, Palo Alto, CA. Historical data for copying or donation should be sent to the Historian, Larry LaDuc, Jr., 484 Arleta Avenue, San Jose, CA. 95128.

THE SOCIETY

The California Historical Radio Society is a non-profit corporation registered in the state of California, and was formed to promote the interests of California vintage and antique radio enthusiasts. Our goal is to provide the opportunity to exchange ideas and information on the history of radio (in California especially.) We hope to be of service to those interested in such areas as collecting of equipment, literature, and programs, etc., and restoration of early gear. Regular meetings and swap meets are scheduled in the San Jose area, with additional meets planned for Southern California in the future. We now have 55 members from throughout the state (and a few from out of state.) As we grow so do the benefits to our members. Tell your friends about us!

THE JOURNAL

The Official Journal of the California Historical Radio Society is published quarterly and is furnished free to members. Our first issue was published in September 1975 and copies are still available to new members. Articles for the Journal are solicited from all members. Any items of interest, such as restoration hints, information on early radio broadcasts and personalities, anecdotes about the pioneers, etc., will be gratefully accepted. Anyone interested in editing a section of the magazine on a regular basis should contact the editor. This can relieve our editor of a great deal of work and insure maximum attention to your area of particular interest.



COLLECTOR SPOTLIGHT

THIS ISSUE : NORMAN BERGE



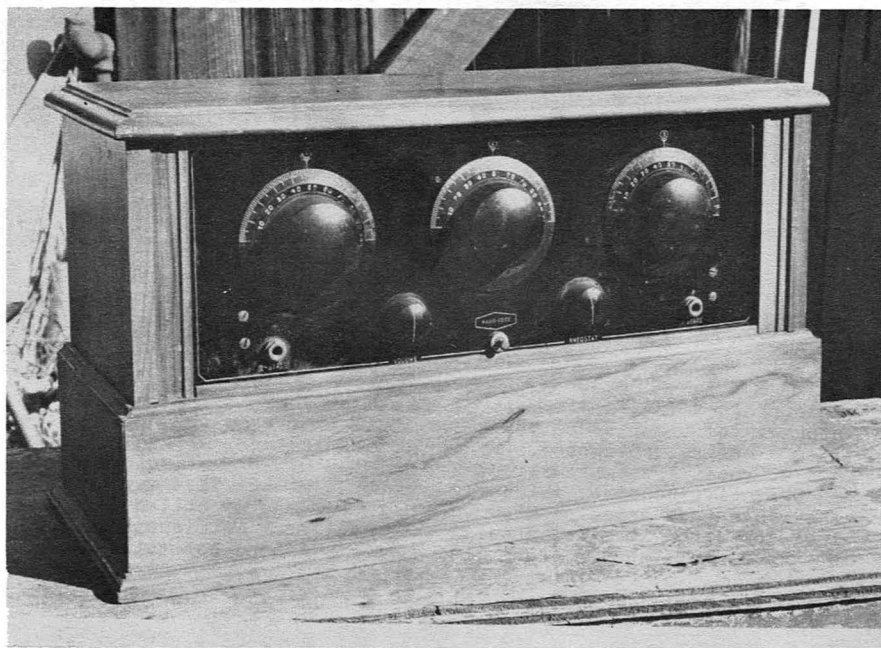
This picture is a small part of my collection. It has been in storage for the past 2½ years so please excuse my unpainted walls. I am a general collector. My collection includes crystal, battery and AC receivers, my earliest set being a Clapp-Eastman one tube regenerative receiver which was purchased at the flea market for the ridiculous price of \$5.00. As you can see my collection also includes other items of special interest, such as microphones, speakers, and tubes. (I am also a 78 rpm record collector.)

FEATURED SET

UNCLE AL'S MAGIC VOICE RECEIVER

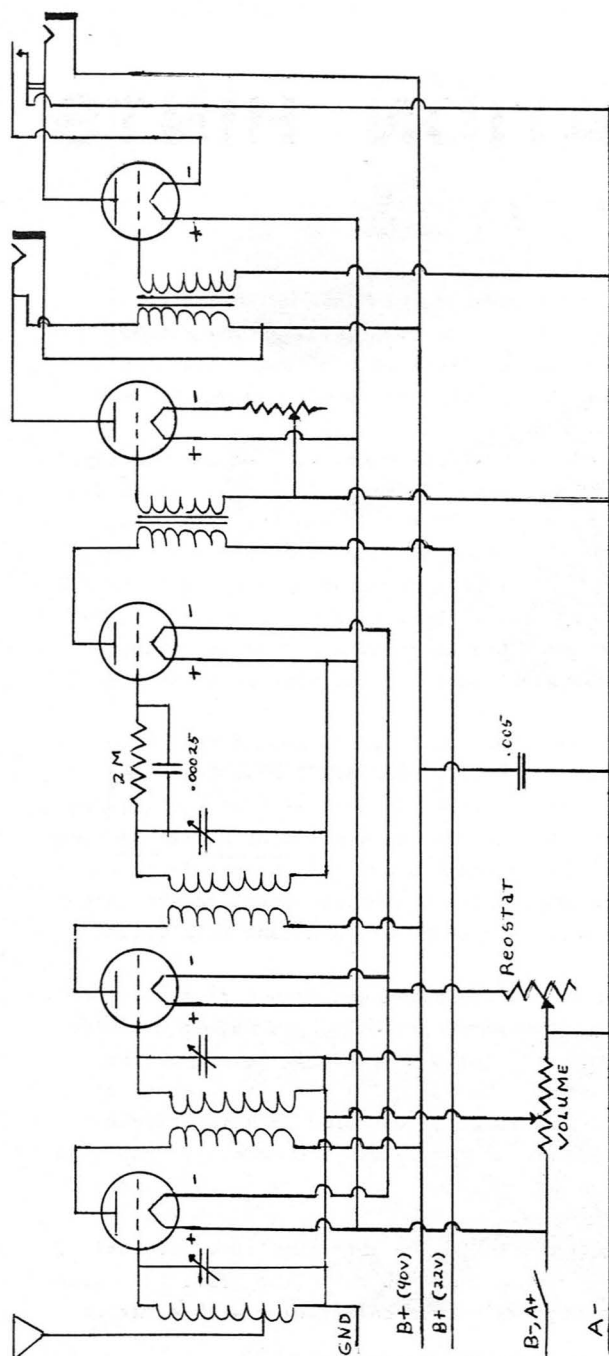
Uncle Al's Radio Shop of Oakland, California was famous for the fine Miracle Crystal sets, of which 25000 were manufactured in the late 20's and early 30's. They also made a two-tube Reflex and a Miracle Crystal set with 1 tube amplifier. The cabinets were all made of gumwood, a sort of blonde finish which characterized all of Uncle Al's receivers. I own several of the Miracle Crystal sets and thought I had seen them all until I found the beautiful Uncle Al five tube receiver, in mint condition. I called the current Uncle Al who runs a TV business in San Leandro. He is the stepson of Mr. A.J. Forbes, who was the original Uncle Al. I was told that only a very few of the Magic Voice 5 tube receivers were made just before the radio bubble burst and Uncle Al went out of the manufacturing business. The original Uncle Al died during World War II. The old factory was located at 2017 - 27th Avenue, Oakland, Calif.

Paul Giganti, W6GVY,
San Carlos, Calif 94070.



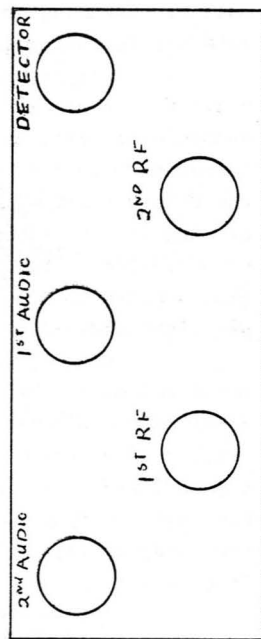
2nd stage

1st stage



'MAGIC VOICE'

UNCLE AL'S RADIO
SHOP



RESTORATION HINTS

REPAIRING MAGNETIC CONE SPEAKERS

BY JIM CIRNER

Prior to 1927, most speakers were of the "magnetic" type as opposed to the now used "voice coil" types. The method of repairing these old magnetic speakers is becoming a lost art. However, assuming that the magnet coils are good, you may proceed with the following information.

For repair of crushed or torn cones such as the Crosley Music Cone speaker, remove cone from speaker. If cone is crushed, dampen with water until paper is pliable and iron it. Set iron temperature control at low heat and iron cone to proper shape on the underside until dry. Don't iron a dry cone or you might scorch or burn it. Glue, sparingly, small tears with G. C. speaker cement on underside of cone. If tears are large it might be necessary to glue a patch to the underside of tears. I use blotter paper for patching material.

Some speakers' motor mechanism parts are made of pot metal and often are cracked or totally broken. I remove all pot metal parts and coat the entire part with 12 to 24 hour-setting-up-time, gray or clear epoxy. If entirely broken I glue broken sections together with 5 minute-setting-up-time epoxy and use the 12 to 24 hour type to fill all the tiny cracks in the pot metal parts. After the epoxy is dry I file excess epoxy off of parts and file parts into proper shape.

If you have to remove the permanent magnet from the motor assembly, put a nail across the magnet to help hold magnetic field. Since I don't have any pictures of the internal structure of the Music Cone speaker, I am going to use a Model 100A drawing out of my RCA service manual. The pictures illustrated in this article are basically how most magnetic cone speakers are made. In the case of the Music Cone, the cone is inverted, that is, the center protrudes toward the listener.

Make sure when you replace the cone that it is properly seated and not applying torque or twist on drive rod (Fig. 1). Also, make sure there are no foreign materials interfacing with armature

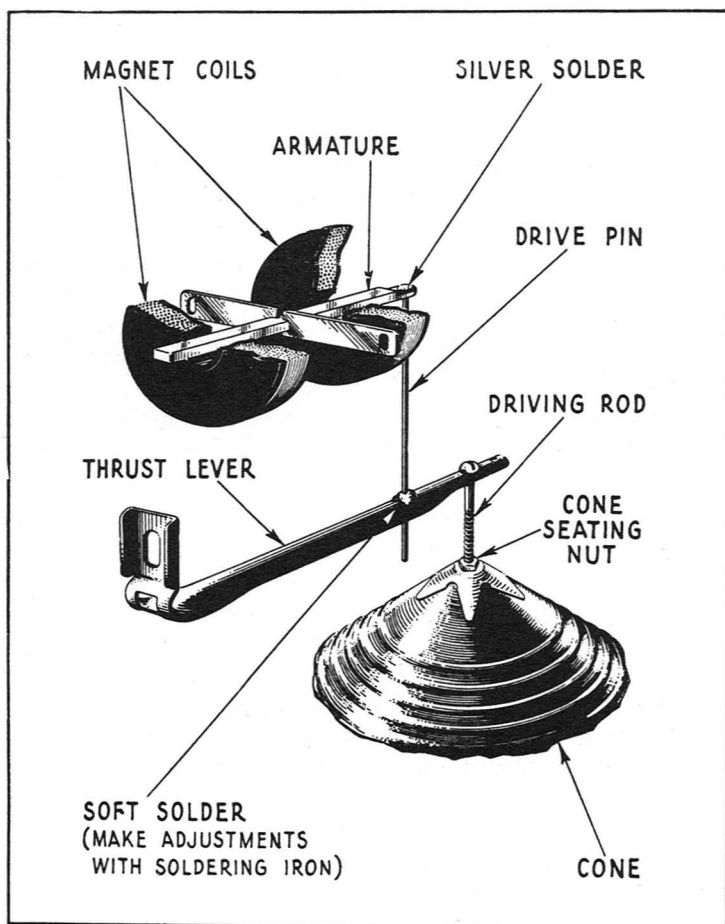


FIGURE 1. Construction details and operating principle of RCA Loudspeaker 100A

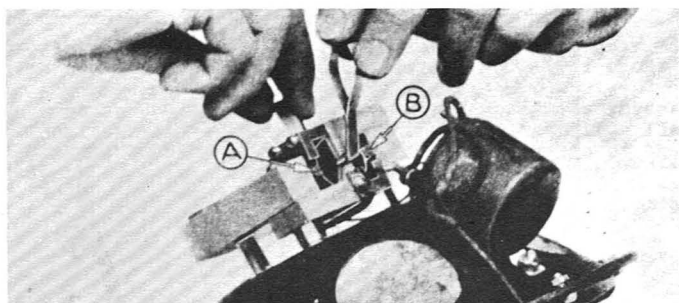


FIGURE 2. Armature bracket adjusting screws A and B

action. I use an air compressor to remove dirt, etc. You can substitute for the tools shown in Figure 3 by using standard speaker shims. They work equally as well.

GENERAL INSTRUCTIONS FOR ADJUSTING ARMATURE STRIKING POLE PIECES:
(Procedure may vary a little in different kinds of speakers)

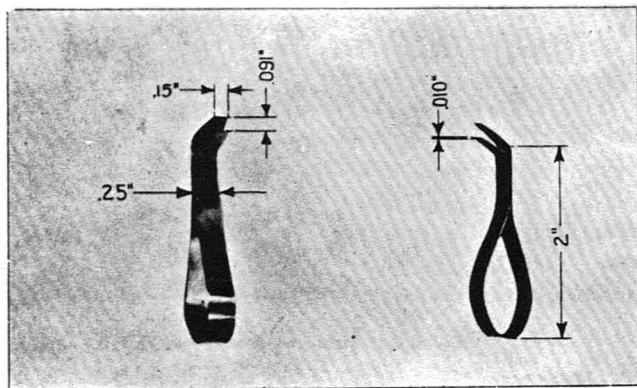
Distortion and rattle may be caused by the armature striking either or both of the pole pieces of the permanent magnet. This is generally determined by inspection, though in some cases the contact may be so slight that it may be necessary to adjust the armature to check on this condition. In any case an adjustment of the armature is necessary.

To adjust the armature, a set of spacer tools is necessary. Figure 3 illustrates the general appearance and correct dimensions of these spacer tools. The stock, obtainable on the open market, should be a phosphorous bronze strip .010" thick and .25" wide. It is bent as illustrated and soldered to hold the opening fairly rigid. The two ends are tapered as illustrated to a .15" width at their extremities.

Two of these tools are necessary when adjusting the armature. Place one tool in the space between the armature and pole piece of the motor mechanism at the end next to the filter unit (Fig 2). The other tool is placed at the other end of the armature a little to one side in order to clear the drive pin located at this end of the armature. By loosening screw A and B (Fig. 2) any tension in either direction which may have been on the armature is released and the spacer tools will provide the correct clearance or spacing. While the spacer tools are in place a hot soldering iron is applied to the drive pin thrust lever, connection point C (Fig. 1), and the solder heated sufficiently to allow the drive pin to find its normal position with regard to the thrust lever. The iron is now removed. Screws A and B (Fig. 2) are tightened and the spacer tools removed. The armature is now correctly aligned and balanced so that no abnormal strain is being imposed upon it in any direction.

FIGURE 3

General appearance and dimensions of armature spacing tools.



WIRELESS TOPICS



Frank J. Quement, one of the pioneer amateur radio operators in the San Jose area is shown sitting at the controls of 6XN in 1922. Mr. Quement is the founder of Quement Electronics, a major Northern California electronics distributor, and is still active in the operation of this business as well as amateur station W6XN.

DO YOU KNOW?

Your society has plans to establish a permanent meeting place and museum by the end of 1976.

Our projected exhibits of early wireless and radio gear will include an operating amateur radio station typical of those on the air in the latter 1920's and early 1930's. Your suggestions are invited as to getting the most interesting, educational exhibit of this type that we can install. Ideas as to appropriate equipment, photographs of ham shacks of that era, suggestions as to obtaining complete units or components will be most welcome. Perhaps our combined efforts will result in finding a donor willing to have his treasured early ham station restored to operation in our museum. Send your comments and (above all) your suggestions to Dave Brodie, 315 Cotton St., Menlo Park, California, 94025.

Future issues of the Journal will keep you informed of progress on this project.

STATION SPOTLIGHT **KYA**

Last time out we traced the history of the granddaddy of California radio stations. This time out we outline the chronology of a "new comer", KYA. This youngster, you will probably agree, has crowded a lot of experiences into its 49 years.

On December 18, 1926 the call letters KYA were first heard on the San Francisco airwaves. KYA began operations from the Clift Hotel with a power of 500 watts at 970 kilohertz. Late 1927 found KYA operating with a power of 1000 watts on 850 kilohertz, having adopted the slogan "West Coast Theatres Studio". The year 1928 saw many more changes. The slogan now was "The Theatre of the Air", and KYA became the San Francisco affiliate of the Columbia Broadcasting System, again changing frequency to 1230 kilohertz. In 1929 the parent corporation of the company operating KYA was beset by financial difficulties and as a result, by December KYA itself was reported "silent". In 1930 KYA was back on the air and in 1931 was acquired by the National Broadcasting Company. 1932 found KYA sharing space with KPO and KGO in the NBC San Francisco studio complex. The Hearst newspaper chain added KYA to their assets in 1934 and relocated the studios to the Hearst building. In 1936 the NBC affiliation was dropped and the station joined

the loosely-knit California Broadcasting System owned by Hearst. Also, in 1937 the day-time operating power was raised to 5,000 watts, and transmitting site was moved to Candlestick point, where a new 450 foot vertical antenna was erected. The NARBA frequency reallocations in 1941 resulted in a shift to 1260 kilohertz. In 1942 KYA was sold for \$50,000. to Palo Alto Radio Station, Inc. a group determined to establish a station "identifying with the interests of Palo Alto residents." In 1945 New York City newspaper publisher Dorothy Schiff Thackery acquired KYA for \$348,800. only to sell it again in 1950 for \$155,000. Also, in 1950 the station joined the Dallas based Liberty Broadcasting System as its bay area affiliate. (this network closed down in 1952). In 1958 the sale price was one million dollars, and KYA became a top 40 formatted station. In 1962 the station was sold for 1.25 million and finally, the AVCO corporation obtained KYA and KYA-FM in 1966 for 4.4 million dollars.

WEDNESDAY Programs

Dec. 7, 1927



"The Blotcky Carolers"
KYA—8 p.m.

CALIFORNIA RADIO STATIONS

ON THE AIR IN

1927

CITY	CALL LETTERS	WAVE LENGTH	FRE- QUENCY	POWER	OWNER
Alma (Holy City)	KFCU	249.9	1200	100	W. F. Riker
Avalon, Catalina Isl.	KFWO	299.8	1000	250	Major Lawrence Mott
Berkeley	KRE	256.3	1170	100	1st Congr. Chur., Berk.
Burbank	KELW	228.9	1310	500	E. L. White
El Centro	KGEN	225.4	1350	15	E. R. Irey & F. Bowles
Eureka	KFWH	254.1	1180	100	F. Wellington Morse Jr.
Fresno	KMJ	365.6	820	50	Fresno Bee
Hollywood	KFQZ	252.4	1290	100	Taft Broadcasting
Hollywood	KMTR	526	570	500	KMTR Radio Corp.
Inglewood	KGGM	204	1470	100	Jay Peters (Portable)
Inglewood	KMIC	223.7	1340	250	J. R. Fouch
La Crescenta	KGFH	223.7	1340	250	Frederick Robinson
Long Beach	KFON	241.8	1240	500	Nichols & Warinner Im.
Long Beach	KGER	215.7	1390	100	C. Merwin Dobyns
Los Angeles	KFI	468.5	640	5000	Earl C. Anthony Inc.
Los Angeles	KFPR	232.4	1290	250	L.A. County Forestry
Los Angeles	KFSG	275.1	1090	500	Echo Park Evang. Assn.
Los Angeles	KFWB	361.2	830	500	Warner Bros.
Los Angeles	KGEF	263	1140	500	Trinity Methodist Chur
Los Angeles	KGFJ	208.2	1440	100	Ben S. Mc Glashan
Los Angeles	KHJ	405.2	740	500	Times Mirror Co.
Los Angeles	KNX	336.9	890	500	L.A. Evening Express
Los Angeles	KPLA	252	1190	500	Pac. Devel. Radio Co.
Los Angeles	KRLO	215.7	1390	250	Freeman Lang & A.Scott
Los Angeles	KTBI	288.3	1040	500	Bible Instit. of L.A.
Lower Lake	KGFU	227.1	1320	50	L. W. Clement
Oakland	KFUS	256.3	1170	50	Louis L. Sherman
Oakland	KFWM	236.1	1270	500	Oakland Educat. Soc.
Oakland	KGO	364.4	780	5000	General Electric
Oakland	KLS	245.8	1220	250	Warner Bros. Rad. Sup.
Oakland	KLX	508.2	590	500	Oakland Tribune
Oakland	KTAB	260.2	1070	500	The Associated Broad.
Oakland	KZM	245.8	1220	100	Preston D. Allen
Pasadena	KPPC	228.9	1310	50	Pasadena Pres. Church
Pasadena	KPSN	315.6	950	1000	The Star News
Sacramento	KFEK	535.4	560	100	Kimball Upson Co.
San Bernardino	KFWC	222.1	1350	100	L. E. Wall
San Diego	KFBC	247.8	1210	100	W.K. Azbill & Dr. Yale
San Diego	KFSD	440.9	680	500	Air Fan Radio Corp.
San Francisco	KPRC	454.3	660	1000	Don Lee, Inc.
San Francisco	KFWI	267.7	1120	500	Radio Entertain. Inc.
San Francisco	KGTT	206.8	1450	50	The Glad Tidings Temple
San Francisco	KJBS	220.4	1360	50	Julius Brunton & Sons
San Francisco	KPO	422.3	710	1000	Hale Bros. & S.F. Chron.
San Francisco	KYA	309.1	970	1000	Pacific Broadcast. Co.
San Jose	KQW	296.9	1010	500	Fred J. Hart
Santa Ana	KWTC	352.7	850	5	Dr. John W. Hancock
Santa Barbara	KFCR	211.1	1420	50	Santa Barbara Broad. Co.
Santa Maria	KSMR	272.6	1100	100	Santa Maria Valley Rail.
Santa Monica	KNRC	374.8	800	500	C. B. Juneau
Stockton	KGDM	217.3	1380	10	V. G. Koping & E. Peffer
Stockton	KWG	344.6	870	50	Portable Wireless Tele.
Venice	KFVD	208.2	1440	250	Mc Whinnie Elec. Co.
Yuba City	KGFM	211.1	1420	15	Geo. W. Johnson

"Wireless" Radio Dancing

By HUGO GERNSBACK,
MEMBER AMERICAN PHYSICAL SOCIETY



Hugo Gernsback's unusual wireless dancing setup was introduced in his own words as follows.

"Since writing my last article, "Parlor Magic with Your Radio Set," in the October issue, I have had hundreds of letters from those who have tried the experiments and who wanted additional tricks. The "Wireless" Dance described herewith comes under that classification, and is a rather mystifying sort of scientific entertainment, from which a great deal of pleasure may be derived. Here are some of the variations:

"You ask your friend to sit down in a comfortable chair, then hand him a pair of receivers, asking him to put them on his head. You then ask him to grasp one of the phone tips of the head set, and to his unbounded astonishment he will hear music, clearly and loudly. You ask him to get up from his chair and walk around, the head set remaining on his head, and he will still hear the music as before. Next you ask your lady friend to have a "wireless" dance with you, as depicted on the front cover of this magazine, and in the illustration on this page. All that is necessary is that both of you don headsets and that each of you touch one of the phone tips of the telephone receivers,

which may either be held in the hand or attached to a metallic bracelet (the latter can be made from a piece of copper or other metallic ribbon and a small binding post to secure the phone tip). As you dance merrily along, the music will be heard loudly and clearly in the two headsets. "Not only that, but if you touch your partner's hand, the music in the phones will be even louder."

MYSTERIOUS MELODY

"It is a rather unusual sight to see a few couples dancing around the floor with radio sets on their heads. There is, of course, no music to be heard anywhere by the spectators; while the radio set may be in the same room or it may be in an adjoining room. It makes no difference."

"The explanation is very simple. The writer, who devoted a good deal of experimentation to this latest scientific trick, wishes to say here that an apparently similar idea originated in England some time ago. The English method, however, is entirely different from the one described here; because with the English one it is necessary to have extra apparatus for the radio set, particularly transformers to step up the energy, and the head sets are not standard sets, but must be made specially to order as they contain condensers."

"In the apparatus described here, any standard radio set, providing it has more than three tubes, can be used, as well as any standard head receiver."

Mr. Gernsback's technique is shown at the right hand side of the illustration. A phone or loud speaker is connected to the output to give the proper impedance. One side of the phone was then connected to the grid of tinfoil strips lying underneath the rug. (With some sets it was necessary to ground the other side of the output to get good results.)

In Mr. Gernsback's words: "We simply cover the floor with a network of tinfoil strips; one or two pounds of tinfoil about 3 or 4 inches wide will serve for even a large room. The idea is to cover as much of the floor as possible, and the spaces should not be bigger than 4 inches square. After the

tinfoil has been laid replace the rug on top of the foil."

"...it is of utmost importance that you grasp one of the phone tips with your fingers or hold it in your hand thus making good contact with your body. The explanation is that your body becomes one conductor of a condenser while the (grid under the rug) is the other conductor of the condenser.

"You will find as you walk along the rug, no matter where in the room, the reception will be startlingly loud and clear. You will also find that when you touch your dancing partner's hand with yours the intensity of the signals will increase somewhat, for the reason that you are now adding an extra body capacity to your own. In other words you have increased the size of the human body-condenser."



Our thanks go to Gerald L. Granat, president of Philmore and son of the company founder, for the following historical information furnished in a letter to the California Historical Radio Society.

Philmore was started by my father and his partner in 1921. They heard the famous radio station in Pittsburgh with their crystal sets and they realized this was the business of the future. They proceeded to buy components from many shops located downtown New York in the Cortlandt Street area in order to produce these crystal sets. From that they started to make radio kits, because at that time kits were cheaper than completely assembled units. Prior to the second World War Philmore had a factory in Paris, France where they made complete radio sets, bringing parts in from the United States. They also represented Sylvania for France and Great Britain. In 1937 they were forced to close their Paris factory, due to the Nazis and the many Communists who infiltrated France at that time. During World War II they made components for our government, which were used widely by the Signal Corps. With the introduction of commercial television after the war, Philmore became RCA licensee's to make their famous 630 chassis. This they made in kit form as well as wired. The company then went on to make a large variety of kits, still making the crystal sets, but going on to short-wave sets, as well as TV sets. Then with the high cost of components to make up these sets, Philmore started purchasing their components from Japan, because of their lower cost. From there they spread out to other countries specializing in all types of components for electronics. Today we still buy from Japan, as well as Europe and some other countries in the Far East. My father is now retired, but the business still continues in his tradition.

THE TUBE COLUMN

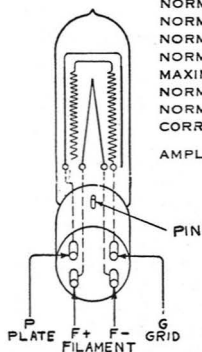
VT-5

By Jim Cirner

The Western Electric VT5 or 215 was used in many commercial receivers such as the Western Electric Model 4B. It is believed that the WDII was a home entertainment version of the VT5.

IMPORTANT READ CAREFULLY

WESTERN ELECTRIC D-80039 (VT-5) VACUUM TUBE USED WITH 121-A VACUUM TUBE SOCKET



NORMAL FILAMENT CURRENT	0.25 AMPERE (SEE NOTE)
NORMAL FILAMENT VOLTAGE	0.85 TO 1.10
NORMAL PLATE VOLTAGE AS DETECTOR	22.5
NORMAL PLATE VOLTAGE AS AMPLIFIER	22.5 TO 90 (SEE NOTE)
MAXIMUM SAFE PLATE VOLTAGE	100
NORMAL GRID VOLTAGE AS AMPLIFIER	0 TO -9 (SEE NOTE)
NORMAL PLATE CURRENT	0.5 TO 2.0 MILLIAMPERES
CORRESPONDING PLATE-FILAMENT IMPEDANCE	25,000 TO 18,000 OHMS
AMPLIFICATION CONSTANT	5 TO 6.5

NOTE:

WHEN USED AS AN AMPLIFIER, A NEGATIVE GRID BIAS SHOULD BE PROVIDED, DEPENDING ON THE STRENGTH OF THE RECEIVED SIGNALS AND THE VALUE OF THE PLATE VOLTAGE. IF SUFFICIENT NEGATIVE BIAS IS NOT USED WITH HIGH PLATE VOLTAGES, AN EXCESSIVE ELECTRON CURRENT WILL BE DRAWN FROM THE FILAMENT WHICH WILL SHORTEN ITS LIFE. THE FOLLOWING TABLE GIVES SUITABLE GRID VOLTAGES FOR VARIOUS PLATE VOLTAGES:

PLATE VOLTAGE	GRID BIAS
22.5	0
45	-1.5 TO -3
67.5	-3 TO -6
90	-6 TO -9

FOR MAXIMUM USEFUL LIFE, THE FILAMENT CURRENT SHOULD BE KEPT AS LOW AS POSSIBLE TO SECURE THE DESIRED OUTPUT. SINCE AN INCREASE OF 10% IN THE CURRENT MAY CAUSE AS MUCH AS 50% DECREASE IN THE USEFUL LIFE, WITH NORMAL CURRENT, THE FILAMENT SHOULD GLOW DULL RED AND SHOULD BE BARELY LUMINOUS IN BRIGHT DAYLIGHT. THE DISCOLORATION OF THE BULB IS DUE TO A MANUFACTURING PROCESS AND HAS NO EFFECT ON THE OPERATION OF THE TUBE.

The Collector's Ads

WANTED: Kennedy knobs, round plastic dials for small Philco cathedrals, 2 and 4 minute cylinders, 6 and 8 inch dynamic speakers. Eugene Rippen, WB6S2S, 16619 Marchmont Drive, Los Gatos, CA. 95030.

FOR SALE OR TRADE: Crosley model 51, Radiola IIIA. Wanted crystal sets and early wireless gear. Ken Miller, WB6BJX, 1950 Cooley, Apt. 6204, Palo Alto, CA. 94303.

WANTED: Reinartz Spider Web Coil; Two Freed-Eisemann audio tfers. Model 376; Panel for Grimes Baby Grand Duplex; National 5886-AB power supply; Two variable capacitors for Bremer-Tully "6". Dave Brodie, 315 Cotton St., Menlo Park, CA. 94025.

Disposing of collection of books, magazines, etc., in the radio, aviation, and misc. fields. Also early round-top tubes. CHRS members send 60¢ postage for the radio book and tube lists. The aviation lists will need 50¢ postage. Those who are not CHRS members send \$1.00 for each subject desired. 10% discount to all CHRS members. Hart York, P.O. Box 365, Fontana, CA. 92335

LEAD: RCA console, about 1930. call Otto Mosher, 964-3674.

Have several radios for trade. Greebe CR9, two Trio Radio Lab crystal sets, Sunnyvale Radio Shop three tube set type A and a De Forest tuner T200 1919. Also have some radios for sale and many parts, tube sockets and RF transformer tuning capacitors and radio related instruments for sale. Send for my complete list. Jim Cirner, 13366 Pastel Lane, Mt. View, CA. 94040, phone: 967-7672.

FOR SALE: QST magazines for the years 1946 thru 1970. Price \$6.00 per year in QST binders. Also have CQ, 73, and ham radio magazines for sale. Will sell or trade. David T. Mc Kenzie, 1200 W. Euclid, Indianola, Iowa 50125.

FOR SALE OR TRADE: Several table models of the '30's. Philco, Zenith, RCA. Have one RCA model 100A speaker.

WANTED: Horn speakers (drivers need not be working). Early AC box sets (damaged wood cabinets preferred if the price is right). Need cabinet for Colin B. Kennedy Model V, 1923 set. Jim Smith, 1145 Delno St. San Jose, Ca. 95126, phone: 249-7165.

WANTED: Hallicrafters 500 ohm speaker suitable for SX-17 (1936). R. Fabris, 3626 Morrie Drive, San Jose, CA. 95127.

WANT ADS ARE FREE TO ALL MEMBERS OF THE CALIFORNIA HISTORICAL RADIO SOCIETY. SUBMIT ADS TO THE EDITOR, KENNETH W. MILLER 1950 COOLEY, APARTMENT 6204, PALO ALTO, CA 94303. DUE TO THE NON-PROFIT STATUS OF OUR SOCIETY, WE CANNOT ACCEPT ADS OF A COMMERCIAL NATURE.

NOTICES

We are revising our meeting schedule and as of now we have no general meeting planned for January. Meetings will be bi-monthly or quarterly with clinics on restoration of vintage equipment, swapmeets, and quest speakers.

We still need a club photographer to take official photographs at our meets. Anyone interested please write to the club headquarters or contact any of the officers.



Radio
Telephone & Telegraph
Apparatus of Merit

Department 67

Young & McCombs
L.P. BEST PRES.
ROCK ISLAND, ILL.

DISTRIBUTORS FOR

DeForest Radio Telephone & Telegraph Co.

Wm. J. Murdock Co.

Amrad Products

Perfection Radio Co.

and all prominent manufacturers

IMMEDIATE DELIVERIES

COPIES OF THE ABOVE YOUNG AND MCCOMBS CATALOG REPRINT WERE DONATED TO THE CLUB BY BOB MIDDLETON AND ARE AVAILABLE FREE TO CLUB MEMBERS WHO SEND A STAMPED SELF-ADDRESSED ENVELOPE. THE ENVELOPE SHOULD BE AT LEAST 6" x 9".

ACKNOWLEDGEMENTS

Broadcast Pro-File and Irwin Rasmussen for the KYA article

Art Johnson for the Collector Spotlight photograph

Queument Electronics for the Frank J. Queument photograph and information.