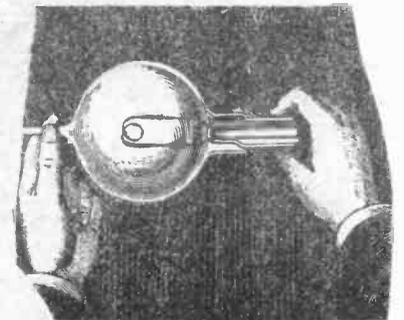


THE NEWSPAPER FOR
THE HOBBYIST OF VINTAGE
ELECTRONICS AND SOUND

THE HORN SPEAKER



Thomas Edison's
incandescent lamp

1879-1979

ARMSTRONG

Pioneer of the super-hetrodyne receiver and broadcasting by frequency modulation.

by Felicia Kreuzer

Edwin Howard Armstrong was born December 18, 1890. His early days were spent in New York City where his father was a printer. His mother and several aunts and uncles were schoolteachers and so he was influenced in the direction of reading and study.

At the age of 9, a blow on the head or an infection brought him down with St. Vitus' dance. After recovering he had a more serious disposition and also a tic, which was evident during periods of stress.

He loved mechanical toys such as trains and played tennis throughout most of his life. Biographies of Faraday and Marconi led to his desire to become an inventor. During his later teens he experimented with spark coils and coherers, earning him the nickname; Buzz. At nineteen he built a 125 foot antenna mast from 2 x 4 lumber. He enjoyed sitting at the peak of his tower for hours.

He enrolled in electrical engineering at Columbia, excelling in telegraphy and various branches of electricity. At 21, on a mountain climbing vacation in Vermont, he got the idea for his famous regeneration or feedback circuit. He passed the detector's plate current through a coil which was coupled back to the grid coil. Thus producing a hitherto unknown degree of amplification. His father refused to advance him money to apply for a patent, fearing that this would interfere with his college graduation. But he finally did put in his application and received his patent in October 1914. With his regenerative receiver he was able to receive sig-



EDWIN H. ARMSTRONG

Inventor of the regenerative and super-regenerative circuits

nals from Germany before the war broke out.

His findings were declared invalid by Lee DeForest, who filed patent claims and declared himself prior inventor. A.T.&T. bought DeForest's patents, ignoring Armstrong's rights entirely. It was not until 1916 that Armstrong licensed American Marconi under his patents.

Armstrong joined the Signal Corps. when America entered the war in 1917. He was assigned the important work of developing communications. That same year Harry Houck also joined the service and was assigned to report to Armstrong in Paris. In testing Houck's circuit knowledge Armstrong watched him draw his own feedback circuit. Asked where he had learned of that circuit, Houck quoted "Wireless World" "and you know, Captain, the fella who invented this has the same name as you." This undoubtedly brought quite a laugh from Armstrong and led to a lifelong friendship. Houck and Armstrong developed the Superheterodyne principle in France and applied for the patent there in December 1918.

Armstrong and Houck also collaborated on super regeneration. A means of bringing an oscillating detector in and out of oscillation by means of a 20 KC modulation, which amplified the signal 100,000 times.

President Sarnoff of RCA paid Armstrong the handsome sum of \$200,000 and 60,000 shares of RCA stock for his superheterodyne patents. The superheterodyne became a great commercial success for RCA between March 1924 and 1927.

In 1922 Armstrong met and married Sarnoff's secretary, Marion McInnis. Shortly thereafter began the long drawn out legal battle with Lee DeForest over patent rights. As a result of the 1924 lawsuit DeForest was issued patents for Armstrong's invention. This battle continued, reaching the Supreme Court, where in 1934 DeForest was named prior inventor of regenerators and Armstrong an infringer.

From 1928 to 1934 Armstrong worked diligently developing a

new idea, frequency modulation. The FM signal is passed through a limiter tube which removes all amplitude modulation including most of the static and man made interference. There it is passed to a discriminator tube which converts the FM signals to audio frequencies.

Armstrong demonstrated his FM System to Sarnoff in 1933 and in 1934 set up a transmitter in the Empire State Building. RCA held

THE ARMSTRONG PATENT

How an Undergraduate at Columbia University Discovered One of the Most Important Instrumentalities in the Radio World

MR. EDWIN H. ARMSTRONG has been confirmed by the United States District Court of Appeals as the inventor of an instrumentality which has been referred to as "one of the most important inventions, if not the most important, in the wireless art." By a striking coincidence the decision comes in the midst of the development of a great public interest in a service made possible by the invention.

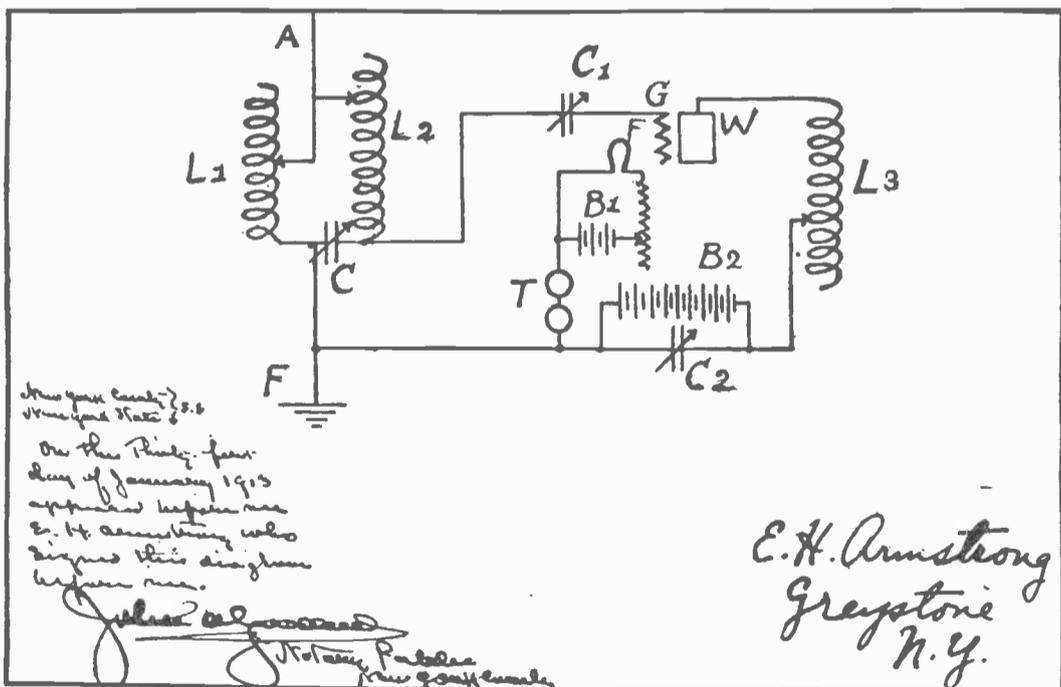
Mr. Armstrong is a young man and was a student at Columbia while he was perfecting his revolutionary method. The instrumentality is the Armstrong feed-back circuit, the invention which makes possible the amplification of incoming radio waves, and lacking which neither long distance radio telephone communication nor radio telephone broadcasting would be possible.

The Court of Appeals thus upholds the de-

cision handed down a year ago by Federal Judge Julius Mayer in the long fight between young Armstrong and Dr. Lee de Forest and the De Forest Radio Telephone and Telegraph Company. The decision of the court, which is final, means that no long distance telephone communication, no nightly broadcasting programme can be carried out without using the Armstrong patent. Even the modern multiplex forms of wired telegraphy and telephony must use the methods.

The story of Armstrong's struggle for recognition has well been called one of the most romantic incidents of scientific achievement. He began his experiments with radio as a boy of fifteen. Before and during his student days at Columbia he became a close student of the fundamental action of the audion and read all the literature available on the subject.

THE ORIGINAL DRAWING OF THE FEED-BACK CIRCUIT WHICH LARGELY DETERMINED THE COURT IN ARMSTRONG'S FAVOR



POSTAL IDENTIFICATION STATEMENT
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graphers and writers, please use the following address;
THE HORN SPEAKER
P.O. BOX 53012
DALLAS TX 75253

off adopting his system commercially as they had become interested in yet another signal mode television. This forced Armstrong to use his own financial resources in developing FM. He had difficulty in getting a government license for an FM transmitter, having to wait two years until 1936 for approval. He was assigned the frequency of 2.7 megacycles and 5 channels. RCA finally made Armstrong an offer for his FM patents but a price could not be agreed on.

World War II arrived and the then Major Armstrong was in service again, working to adapt FM to military communications. He also did some work on radar; too late for the war effort, but he was awarded the medal of Merit by President Truman at the close of the war.

In 1945 the F.C.C. moved FM from the 50 M.C. band to between 88 and 108 mc forcing a complete rework of transmitters and a two year set back in commercial development. In 1948 Armstrong filed suit against RCA and NBC for willfully infringing the basic FM patents.

In 1953 Armstrong reached the end of his financial resources. His money had gone into FM devel-

72

RADIO BROADCAST May 1922

Sometime during this period he connected a condenser across the telephone of a simple audion receiving system and noticed that on some bulbs an increase in signal strength would result.

He proceeded with his careful studies and experiments and obtained what he believed to be remarkable results. He showed the results to his father and asked for money with which to make application for a patent. His father refused, apparently not greatly impressed. Armstrong then applied to his uncle who also declined to finance him but suggested that the young man make a drawing of his principle and have it witnessed by a notary. Armstrong did so and it proved to be the most significant event of his life. The decision of the court was very materially influenced, it is apparent, by the fact that Armstrong had definite theories and beliefs about his invention and had carefully recorded them.

Armstrong failed to get the support of his family, but he did gain the attention of Professor Michael I. Pupin who took him into the Marcellus Hartley laboratories at Columbia University and enabled him to continue his researches. Litigation began in 1916 and continued until this country entered the war when a truce was signed. Armstrong was commissioned a major in the Signal Corps and was sitting in Hindenburg's former headquarters at Spa, Belgium, after the Armistice when a cablegram from his lawyer announced that Doctor de Forest was again pressing for action. The end has now been reached.

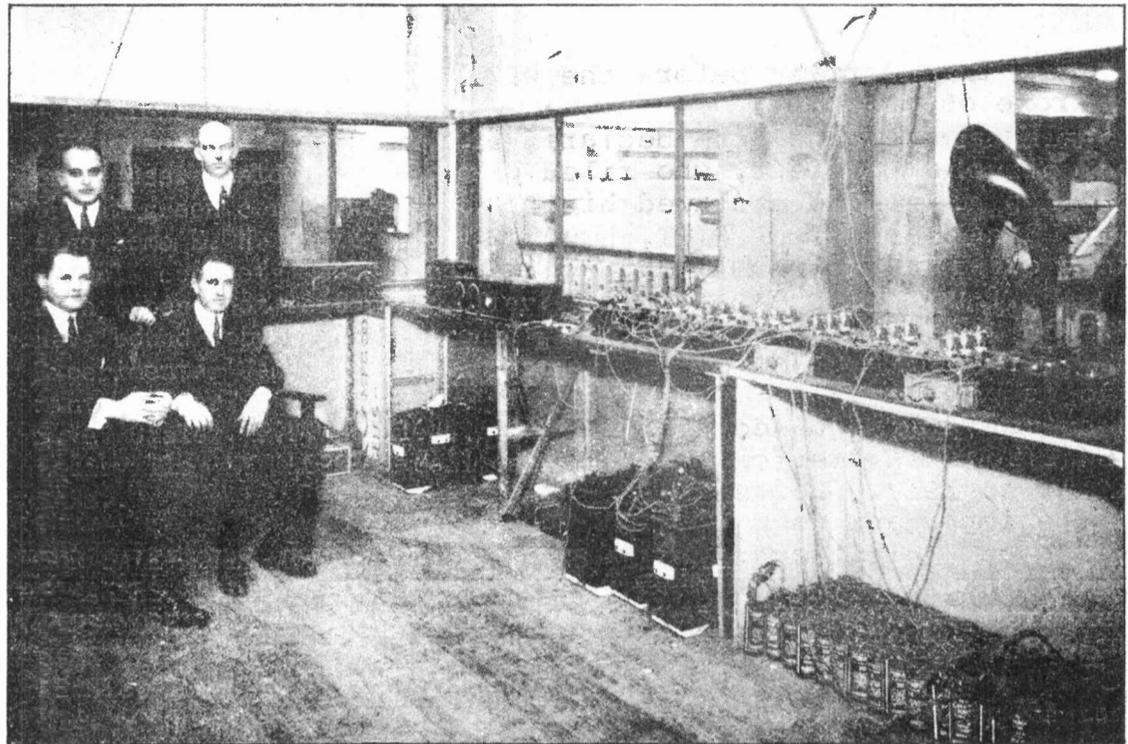
In the meanwhile Armstrong had issued licenses for the use of his patent in manufacturing receiving sets to seventeen different concerns, and then sold the patent itself to the



E. H. ARMSTRONG

The discoverer of the "feed-back" circuit, in the uniform of a major in the Signal Corps during the war

Westinghouse Company. Under the licensing agreement which the Westinghouse Company has with the other manufacturers which sell through the Radio Corporation, the Armstrong circuit will continue to be used by them. The decision will not affect these manufacturers nor the public. It will give credit and profit where both are due.



ARMSTRONG'S SUPER-HETERODYNE

In a glorified form, it was one of the features of the radio exposition held in New York. Western Electric loud speakers, each operated from its own power amplifier, were placed in various points in the Grand Central Palace. The plate voltage was supplied by a great number of standard 6-inch dry cells, and about thirty-six vacuum tubes were used. Radio engineers predicted failure for this outfit, which was installed and operated by the Radio Club of America with complete success. Left to right, in the picture, are: L. S. Byers of the Exposition Company; Louis G. Pacent, chairman of the Committee on Papers; George Burghard, President; and Edwin H. Armstrong, Past President of the Radio Club

RADIO BROADCAST, May 1923

opment and into several costly lawsuits. He had aged 10 years prematurely. In November his wife left him and went to live with a sister in Connecticut.

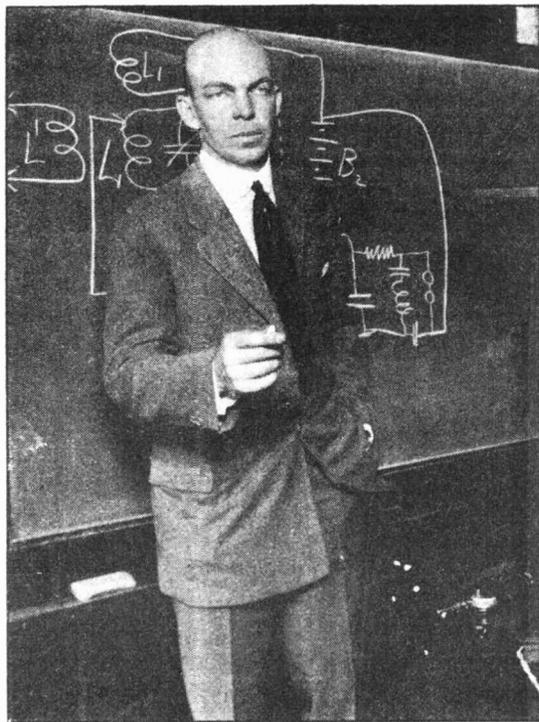
On January 31, 1954 Armstrong, lonely and sick at heart, wrote a two-page letter to his wife expressing his love for her and deploring the toll the years had taken on them. His final words were: "God keep you and the Lord have mercy on my soul." He dressed neatly as if to go out for a walk. He then climbed out of a 13 story window, falling to a third floor projection overlooking the river. There he was found the following morning by a building maintenance worker. The long years of pressure and litigation had finally taken their toll.

References:

Man of High Fidelity: Edwin Howard Armstrong, by Lawrence Lessing, March 1969, Bantam Books, Inc.

Marion Armstrong, wife of the late Major Armstrong, passed away on August 8th at the age of 81.

From the N.F.W.A., official bulletin of The Niagra Frontier Wireless Association, Box 68, Station H, Buffalo, New York 14214



© and courtesy of Hearst's International Magazine

HE MADE RADIO HIS BUSINESS

Edwin H. Armstrong has been responsible, within the past ten years, for three of the most important radio developments. Before the War, he invented regeneration which makes long-distance reception possible with a minimum of equipment. During the War, he devised a system of reception called the super-heterodyne, used at the time



← HE CAME, HE SAW, HE BECAME A RADIO MAN

At the age of sixteen, David Sarnoff persuaded the superintendent of the Marconi Company that he was the "Boy wanted." He soon became an operator, then manager of the Sea Gate station, then sailed to the Arctic as wireless operator on a sealing vessel. Returning, he enrolled as student in electrical engineering at the Pratt Institute night school, in Brooklyn. His next position was that of Inspector, then Chief Inspector for the Marconi Company. In September, 1922—at the age of 32—he was elected Vice-President and General Manager of the Radio Corporation. He is the man who, eleven years ago, received the message in New York, from the S.S. Olympic, 1,400 miles at sea, giving first confirmation of the sinking of the Titanic

RADIO BROADCAST, July 1923

RADIO BROADCAST, July 1923

for intercepting enemy messages on very short wavelengths and now becoming popular for long-distance broadcast reception. Last year he disclosed his most recent invention—super-regeneration. Among the apparently unlimited possibilities of this form of reception is long-distance work with a single-tube loop set



David Sarnoff, President of the Radio Corporation of America

RADIO NEWS, March 1930



©Kadel & Herbert

A THREE-TUBE SUPER-REGENERATIVE RECEIVING OUTFIT

Used by E. H. Armstrong at the Radio Club of America's meeting held in Columbia University. Signals from a loud speaker were clearly heard over the entire auditorium

RADIO BROADCAST, September 1922

letters

Dear Jim:

I previously subscribed to your paper and found it swell except for one thing. Seems to me there was more excitement in the cheap price of purchase than the set itself particularly in the "find of the month". It made me wonder whether the purpose of the hobby was to collect and preserve radio history or make money. However, I'll try again.

Sincerely,
M.B.

Dear Mr. Cranshaw,

Tudor Rees always looks forward to receiving the "Horn Speaker" which he finds of interest. He is wondering if you would be interested to learn of the American sets recently purchased by him.

1. Stromberg-Carlson Neutrodyne - once the personal property of a Lancashire Cotton millionaire. Still have all the original receipts, invoices and shipping documents from date of purchase from the company in New York.
2. 24 Tube Mid-West Royal (badly needs a good tuning dial disk for this - can you help please?).
3. Scott Philharmonic and Phantoms and a 1936 Wurlitzer Juke Box is on its way.

Yours sincerely,
A. Jenkins (Sec.)
Vintage Wireless Co.
64 Broad Street
Staple Hill, Bristol BS15 5NL
Gt. Britain

Dear Jim:

Enjoyed your write-up on Philco. I joined the company in June 1937 and retired May 1974, after 37 years in the Patent Department.

Hope everything is OK down in Texas.

Regards,
William E. Denk W3IGU
81 Steeplechase Road
Devon PA 19333

Dear Jim:

Everyone who has been repairing AC sets, especially ones from the mid 30's has needed to replace volume controls.

Until just recently, Centralab has offered an excellent line of replacement controls. Their system used separate shafts, switches, pot elements (even many with loudness taps) and mounting hardware.

Last month they discontinued this excellent line, and most distributors sent their stock back to get their money back.

I have three things to say here that may help collectors in finding pots to replace those that are "too far gone" to clean.

First, some distributors still have their stock, so if you know the values of pots you usually need, stockup. Don't forget switches and shafts especially the full-round 1/4" jobs that you can cut & file to fit anything.

Second, TRW has a modular replacement control line that is similar to Centralabs, although not as extensive. Send for their control catalog: TRW Electronics supply, 414 N. 13th., Philadelphia PA 19108.

Third, I have an extensive stock of old, old Centralab pots (from their system preceeding the latest

one) and any one having trouble locating a pot should send the characteristics (shaft style, resistance, tap--if any, switch-if needed) and model number and manufacturer of the set to Mark Oppat, 31800 Balmoral Dr., Livonia MI 48154.

Thank you,
Mark T. Oppat
31800 Balmoral Dr.
Livonia MI 48154

Jim Cranshaw,

I wrote you a few years back over old time tubes. A man here is selling off his collection of old time radios. Maybe this is your chance to add to yours. His name is: Willard J. Wenty, 400 East Cass, Prairie du Chien, Wisconsin. 53821. Phone 1-608-326-2877.

Clement V. Lechnir
221 South Marquette
Prairie du Chien,
Wisconsin 53821

Dear Jim:

Enclosed is my check for \$5.50 for another year's subscription to THE HORN SPEAKER.

Since retiring a little more than a year ago I have stepped up my radio collecting as well as my buying of books which go along with the hobby. I'm strictly a novice so what I need most is simple, trouble-shooting advice and also the names of some highly reliable, competent restorers.

For example, while in Branson, Missouri this summer I picked up a nice Radiola 80 console at a fair price but it needs the hand of a master repairman to make it operative. I want no part of transistors mounted inside hollowed out tubes or other such measures except as they are absolutely necessary.

This Radiola is well made. The tubes seem to be in excellent condition. The seller told me when turned on the set would smoke and it does. I turned it on just enough to see that the trouble seems to be in the lower bank of equipment where the transformers and perhaps condensers are located. The tubes all light but there is no sound - nothing but the light wisp of smoke showing trouble a brewing.

I also have an Atwater Kent Model 40 with drum speaker which is operative. I have a Zenith 3R which has a marvelous cabinet but the works are partly corroded, etc. Have amassed some 80 tubes of various descriptions and many table and console sets including a big Atwater Kent console with record player and two speakers. Have a National Carbon Company table model with cathedral speaker and

models 70 and 90 Majestic consoles. I was pleased to see many of these sets I have pictured in the 1887-1929 VINTAGE RADIO book I bought from one of your advertisements.

If there are competent custom repairmen available, I'd like to see them advertise in THE HORN SPEAKER. I enjoy your publication and look forward to receiving each issue. Keep up the good work.

Sincerely,
John W. Hamilton
1405 West 9th Ave.
Stillwater OK 74074

Dear Mr. Cranshaw:

Recently I saw the October, 1979 issue of "The Horn Speaker" and enjoyed the article on the history of Philco.

To bring you up-to-date, Philco television was bought by the Consumer Electronics Company of General Telephone and Electronics Corp. in 1974. The Philco marketing headquarters is in Batavia, NY and manufacture of Philco color televisions is done in Smithfield, North Carolina. Today a complete line of consumer electronics carries the Philco brand name including color and black & white TVs, stereo components and consoles and videotape players.

Thank you for your support and interest in Philco.

Sincerely,
Charlene R. Antaramian
Supervisor, Sales Training
GTE Consumer Electronics Co.
Div. of GTE Products Corp.
700 Ellicott Street
Batavia NY 14020

Dear Sir (s):

I don't subscribe to your magazine, but have heard that you are an excellent source of information and parts for antique radios.

My uncle has an old Grunow Model 500 table radio that appears to be very old. He wants me to try to fix it so it works. The tubes all light up but there is no sound. I would like to obtain a photocopy of the schematic. Also it would be interesting to know how old the set is and whether it's valuable at all.

Could you pass this along to your readers?

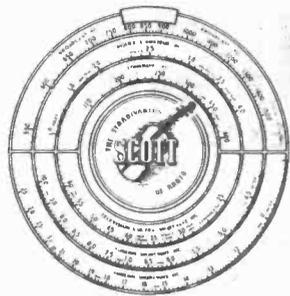
Thank you very much.

Sincerely,
Bill Laughlin
6804 Ballard
Lincoln NE 68507

EDITOR...Always glad to get an old set working.

Dear Jim:

Enclosed is check for \$5.50 which will keep your paper coming for another year. Also did pick up a few more radios which is an Eagle 5 tube neutrodyne also a 4 tube Aladin Big



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ANTIQUE RADIO TOPICS & THE CLASSIC RADIO NEWSLETTER

ANNOUNCING.....



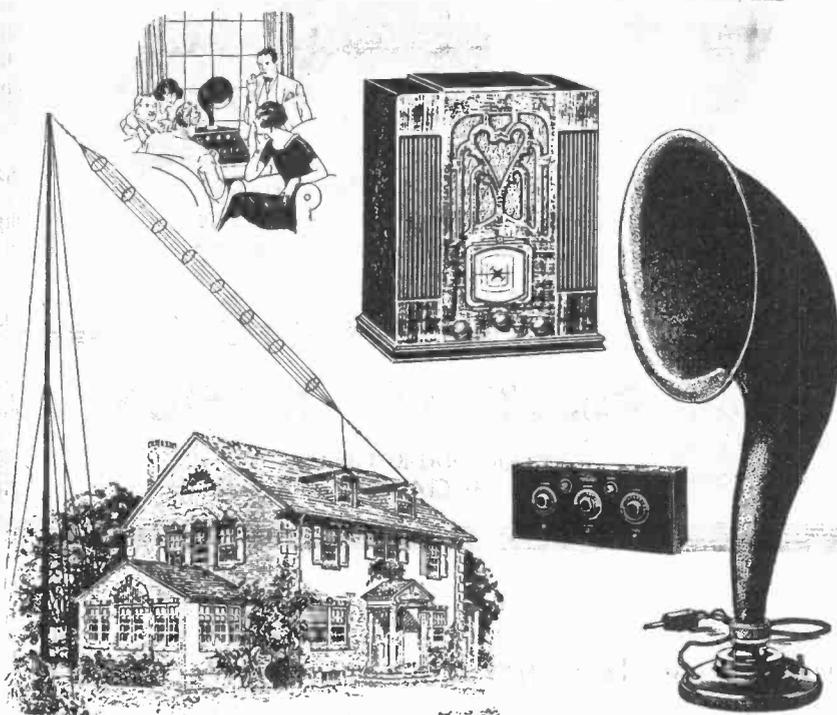
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THE CLASSIC RADIO NEWSLETTER

DIRECTORY BY JWF PUETT OF ANTIQUE RADIO SERVICES



THE DIRECTORY OF ANTIQUE RADIO SERVICES LISTS SOURCES FOR ANTIQUE RADIO MERCHANDISE AND SERVICES THROUGHOUT THE U.S.A. AND IN OTHER COUNTRIES. THE DIRECTORY REPLACES OUR LIST OF ANTIQUE RADIO SERVICES WHICH IS NO LONGER AVAILABLE.

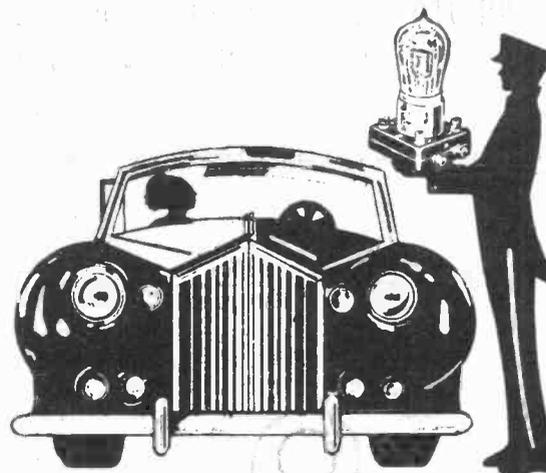
THE DIRECTORY CONTAINS 48 DIFFERENT CATEGORIES. THIS FIRST ISSUE CONTAINS 251 LISTINGS. THE LISTED SOURCES INCLUDE TUBES, TECHNICAL DATA, BOOKS, PERIODICALS, CLUBS, ATWATER KENT PARTS & RE-PRINTS, SPEAKER RECONING, ESCUTCHEONS, DIALS, KNOBS, OLD-TIME RADIO PROGRAMS, BATTERY-SET POWER SUPPLIES, ANTIQUE TV, MICROPHONES, HAM GEAR, TELEGRAPH EQUIPMENT, AND MANY OTHERS.

NEED A LAMP COVER FOR YOUR RADIOLA 17 OR 18 OR A LION DECAL FOR YOUR MAGNAVOX OR BATTERY CABLE FOR YOUR ATWATER KENT BREADBOARD??? THESE ARE JUST A FEW OF THE SPECIFIC LISTINGS INCLUDED IN THE DIRECTORY!!!

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"BRUCE WILL BE PLEASED WHEN HE LEARNS HOW I HAVE SAVED MONEY ON HIS CHRISTMAS GIFTS BY PURCHASING FROM
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NEW

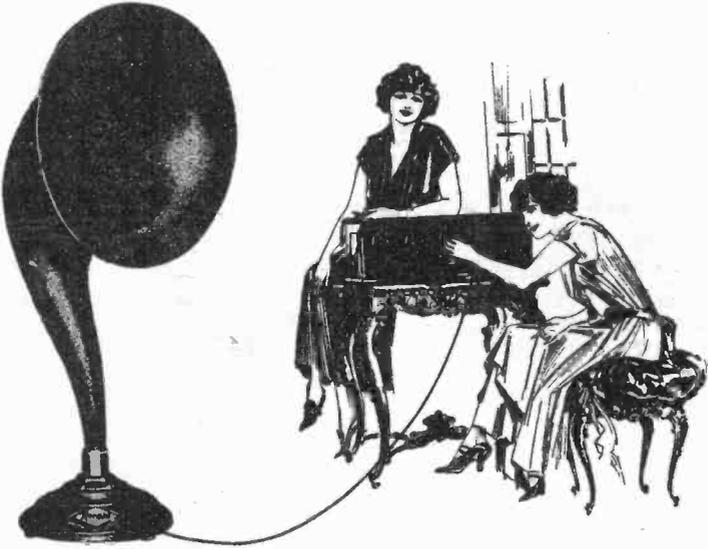
THE ENCYCLOPEDIA OF ANTIQUE RADIO IS A CONTINUATION OF THE TYPE OF REFERENCE MATERIAL FOUND IN THE BOOKS ENTITLED "VINTAGE RADIO" & "A FLICK OF THE SWITCH" BY MORGAN E. McMAHON. THE CONTENT OF THE FIRST VOLUMES OF THE ENCYCLOPEDIA WILL BE LIMITED TO RECEIVERS AND EQUIPMENT WHICH WERE NOT INCLUDED IN THE VINTAGE RADIO BOOKS.

THE ENCYCLOPEDIA IS A COLLECTOR'S REFERENCE WITH HUNDREDS OF PHOTOGRAPHS AND ILLUSTRATIONS OF ANTIQUE RADIO RECEIVERS AND EQUIPMENT. YOU CAN NOW IDENTIFY SETS WHICH HAVE NOT BEEN PREVIOUSLY PUBLISHED IN ANTIQUE RADIO LITERATURE.

THE ENCYCLOPEDIA IS A PANORAMA OF RADIO HISTORY ENCOMPASSING SPARK TRANSMITTERS & RECEIVERS, CRYSTAL SETS, TUBES AND COMPONENTS, AND BATTERY POWERED & AC POWERED RADIOS.

THE ENCYCLOPEDIA OF ANTIQUE RADIO

VOLUME 1 BY JWF PUETT



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VOLUME I OF THE ENCYCLOPEDIA IS AVAILABLE FOR IMMEDIATE SHIPMENT. VOLUME II WILL BE AVAILABLE IN APPROXIMATELY THREE MONTHS.

\$7.95 POSTPAID

Four. I also picked up 50 Electrical 16 inch Transcription Records which I also collect, would like to get in touch with other collectors that have these records. I also have restored an old Atwater Kent 40 by using the book by Alan Douglas. To match the paint I used a can of Red Devil walnut paint and just kept adding black to get a close match.

Well, Jim that's all for now, keep up the good work in your paper.

Thank you,

Julius H. Pilger K2KCB
123-09 18th Ave.

College Point N.Y. 11356

Hi Jim:

Hope I am in time with my renewal so I won't miss the next issue.

One project I have going is the history of early radio in Nebraska. The Nebraska Historical Society has obtained interviews and letters from old-timers in the broadcasting field. We have also found that we had a radio factory in Nebraska, a Mr. Gabus of Brock, Nebraska built radios with the trade name of "Gabriola". I would appreciate hearing from collectors having GABRIOLA sets in order to get an idea as to the different models and extent of distribution. Photos would be appreciated. All records were lost and no advertising has been found to date.

Thanks,
Will Jensby
Box 96
Davenport NE 68335
Ph: 402 364-2462

Dear Jim:

Please renew my subscription to "The Horn Speaker", check enclosed in amount of \$6.35 to cover subs. and enclosed ad.

Recent "Finds" here are Zenith 3R, Federal 58-DX and a real old slide tuner with early XTAL detector and a real old loose coupler with a Murdock loading inductance on it.

73 Chet

R. Chester Wisner
1014 Main St.
Dalton MA 01201

Dear Jim:

Here's another year of Horn Speaker. Thanks for a great publication. Your ads work--I got the Scott All-Wave Imperial I wanted from my ad, trading Mike Stosich of Bolingbrook, Ill., two antique MadIntosh amplifiers for it!

Best wishes,

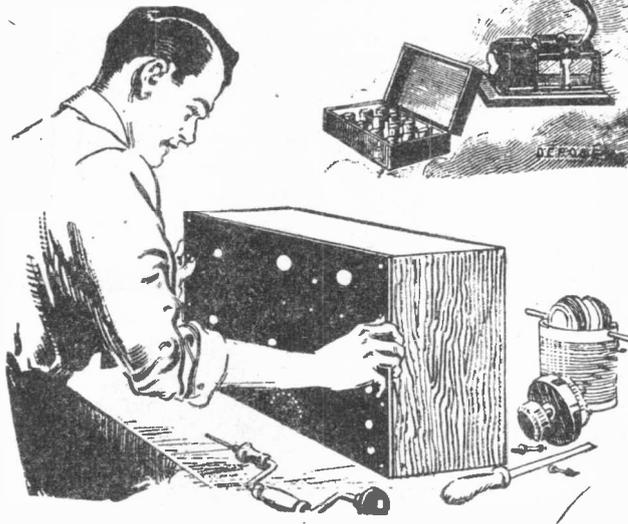
Rich

Richard Modafferi
Route 1, Skyline Dr.
Vestal N.Y. 13850

CLINIC

This month: by

George Friedrich
Route 1, Box 85
Custer WI 54423



club news

BIRTHDAY PARTY at HOUSTON VINTAGE RADIO CLUB

The Houston Club even though only one year old has grown to be one of the largest regional clubs. It has regular monthly meetings and a monthly news letter called the Houston Vintage Radio News. For next month a layout of pictures of the club's birthday party is scheduled. For information or membership or anything else write: Frank Cooper, 4215 Ravine Drive, Friendswood, Texas 77546, or George Maczali, 4102 Durness Way, Houston TX 77025.

NEW CLUB

November 1, 1979 was the first meeting of The Arkansas Antique Radio Club. Jim Sargent is president, Tom Burgess is vice president, Ray Poindexter is secretary and the treasurer is Joe Ballard. They want all correspondence sent to; Tom Burgess, Arkansas Antique Radio Club, P.O. Box 4403, Little Rock AR 72214.

The A.A.R.C. has monthly meetings and a newsletter. For the December meeting Billy Honnell was scheduled to give a program of tips on restoring old radios.

Here is a way to refurbish the fronts of old radios whose veneer has warped or broken out in places. I have found it works beautiful!

Purchase an old console junker whose cabinet veneers are in good shape. Clean the woods good inside and out with warm soapy water. Then (depending upon the size) immerse the whole cabinet in a tub of warm water for a day or so. The veneers will then peel off like a banana skin!

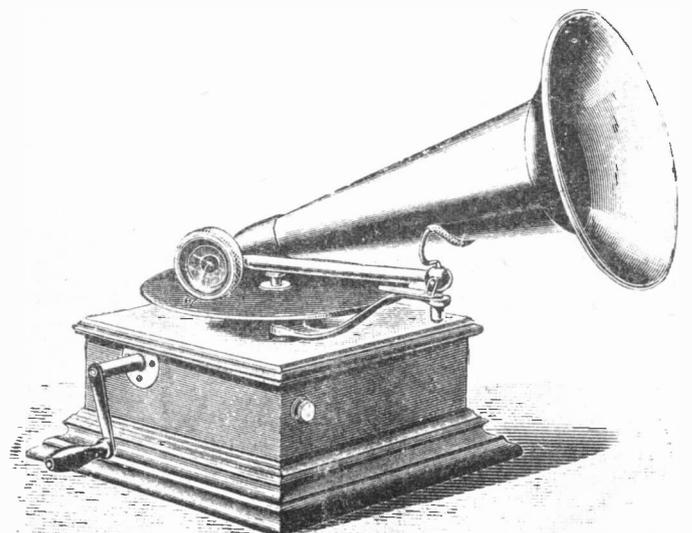
I then lay the veneer on a flat surface and place a piece of 2 X 4 across at regular intervals to keep it from warping as it dries out. Once good and dry it can be glued to the set you want to refinish. It can be lightly sanded, stained and varnished once it is in place. Makes an excellent job!

I have left some old cabinets out in the rain for a few days. This also works good. A good down pour of rain really loosens the veneers! If you can't put the cabinet in your bath tub, try any means you have to soak it. As I said, a few days of rain does a good job, but be careful when removing the veneers. A putty knife run under the veneer helps.

ADLER PHONOGRAPHS 1905



Baby 156.



Adler 101.

**the hottest
news in years!**



The Ideal Christmas Gifts

**Wow! Now you can
CHARGE IT**

CHARGE ANYTHING WE SELL!!!

SEND YOUR MASTER CHARGE OR VISA ACCOUNT NUMBER AND EXPIRATION DATE WITH YOUR ORDER!

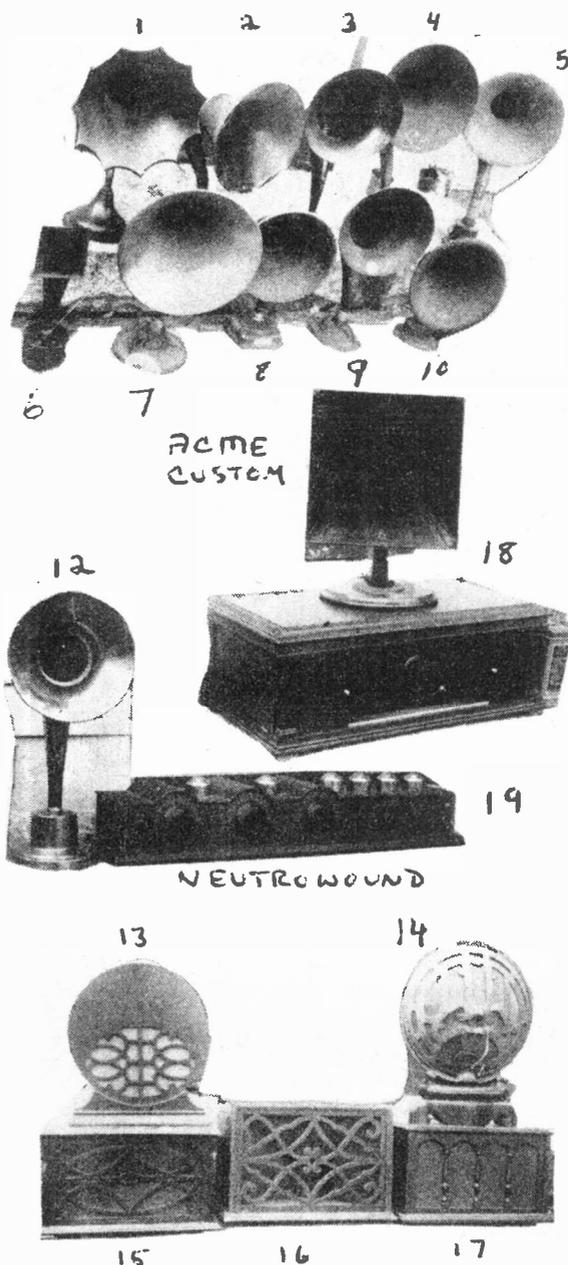


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HORN SPEAKERS

1. Unknown horn as pictured with scalloped morning glory style horn. Black hard rubber bell, 15 inch diam, 23 inch high. No driver, gd cond. \$35
 2. Towers black metal horn 13 inch diam, 22 inch high. Gd cond, gd driver, needs speaker cord. \$65
 3. Herald metal base, composition horn, 12 inch diam, 24 high, gd driver, vy gd cond, needs new cord. \$75
 4. Magnavox R-3 Black crackle metal horn, gd driver, vy gd cond. 14 in diam, 28 in high. \$125
 5. Manhattan Elec Supply, heavily textured composition horn with volume control in metal base Gd driver and cord. Vy gd cond. \$75
 6. Unusual pint-size horn, unknown brand, has armature and diaphragm driver like old phono pick ups. Gd driver, gd cond. All metal, brown crackle paint. \$100
 7. Music Master curved horn, nice light finish laminated wooden bell, 13 in diam, 22 in high. Gd driver vy gd cond. \$85
 8. Magnavox M-4 all metal, gd cond, open driver 11 in diam 18 in high. Black. \$60
 9. Towers Scientific Black composition horn, metal base. Gd cond, gd driver. 11 in diam 22 in high. \$50
 - 10 Atwater Kent Type R, very gd cond, driver missing. \$40
- ADDITIONAL ITEMS NOT SHOWN
- Atwater Kent Type M horn only, base unit missing. Very good cond. \$35. This is larger version of R.
 - Two small black straightnecked composition horns (no base) of unknown brand. \$10 each
 - Music Master, same as 7 except bell portion missing good driver, gd cond. \$30
 11. Baldwin floor standing horn. Highly unusual 20's horn. Grille looks like later AK cones but in reality is a horn with a husky Baldwin driver in base. Solid cast aluminum. 40 in tall. Green & gold. \$200
 12. Chrome plated horn, no driver, Base marked BRC Co. Tentatively identified as British. Chrome peeled in one small area. Heavy cast plated base. 9½ in diam 21 in high. Beautiful display item. \$100

Horn speakers that don't look like horn speakers

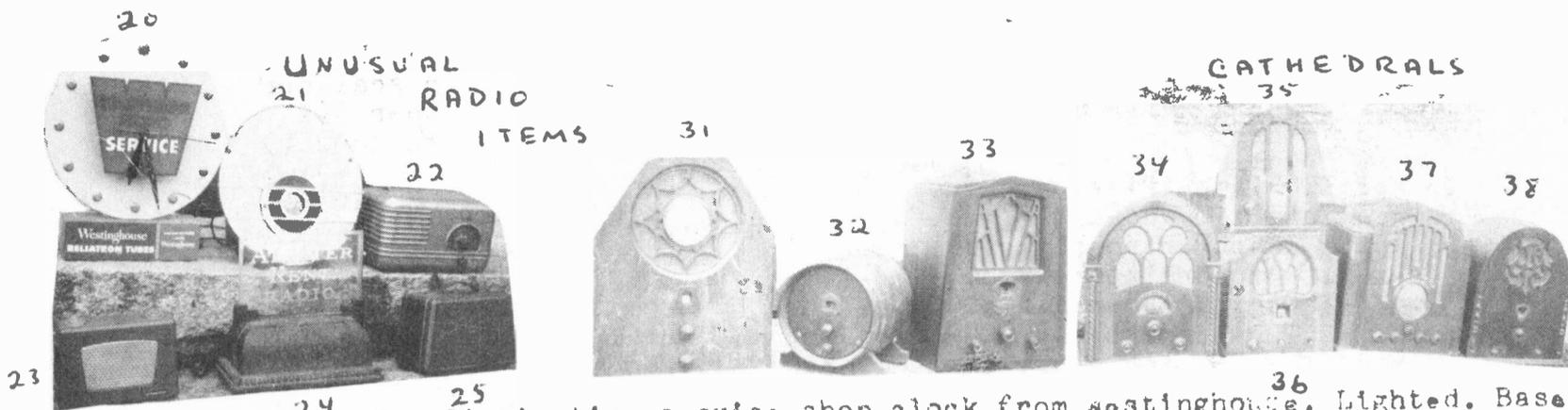
13. Tele-tone horn curled around into unusual wooden case. gd driver gd cond. \$35
14. Borkman Radio "Velvet" chinese styled enclosure. Would match very well with the vintage and style of a Grebe Synchronphase. Gd cond, working. \$45
15. Bristol Super C horn in a box. Vy gd cond, working. \$40
16. Manhattan Elec. #2551 Gd cond working. \$35
17. Magnavox M-20 Very gd cond. working. \$40

SHOWPIECE

18. Gorgeous Acme reflex made by cabinetmaker John Stacey of Arlington, Mass. Rolltop desk style doors conceal an absolutely flawless front panel. Cabinetry is absolutely exceptional. Electrical work perfect. This is by far the most beautiful "non-factory" set I have ever seen. Cannot possibly go overboard in describing it. With the radio comes an Acme Kleerspeaker in very good working order and an Acme B eliminator. This setup belongs in front row center. Radio is large, 27 long, 10½ high, 15 deep. Horn is 18 high with 12 in sq. bell. Full set of photos available for \$2. Radio shipped by motor freight. \$350
19. Neutrowound 1927 by Advance Automotive Accessories. A real prize from the tail end of the battery era. Unique design. Finish is a deep blue crackle over an orange base. Orange shows through crackle. Corner trim and tube covers are nickel plate in excellent shape. Chrome horn listed elsewhere makes excellent aesthetic match for this set. Neutrowound \$225

PRICES DO NOT INCLUDE SHIPPING

All items on this page can be shipped Parcel Post except Acme Reflex which has to go by motor freight. Both Acme and Neutrowound have complete set of tubes. Call 617-597-8157 11 am to 4 pm weekdays, anytime after 11 am Sat on weekends. Or write: Tom Rutherford 2 Stearns Ave. Townsend, Mass. 01469



20. Distinctive service shop clock from Westinghouse. Lighted. Base is repro of Westinghouse tube carton. Working and in vj gd. \$75
21. Sparton Mirror radio, blue mirror glass and chrome Art Deco model from the 30's. Ugly or beautiful depending on your taste. Deserves a prize either way. Working, small backside chip in glass, otherwise gd cond. \$100
22. Coin operated Motel Radio, metal case, green made in late 40's or 50's. It works, drop a quarter in the slot and it plays for two hours. Good shape. \$50
23. Very early Raytheon transistor portable. Looks like a tube set redesigned with transistor sockets but tube type components. Uses plug-in Raytheon CK series transistors. Power 4 D cells. Tan leather case excellent, battery holder and probably sockets will need cleaning to get going AMBCB. \$35
24. Atwater Kent lighted store display sign. Cast metal base, engraved sign glass is lit from below by a regular 40 watt bulb through a red filter. Striking display piece for AK collectors. Stores may have sold hundreds of AK radios, but they only had one of these. Excellent condition, \$275



25. Farnsworth Lunchbox portable. AC or Batt. 1S4, 1T4; eta min tubes. Working, good shape, leatherlike finish. \$35
26. MA-ALD micro speaker. If you look real close above the Crosley console and on top of the Stewart Warner you will see what looks like a novelty item, but is actually a working inverted external cone speaker. Only 5 in tall with 4 in diam cone. In 12 years of collecting I have never seen another despite the fact that I live only 60 miles from where it was made. Excellent cond. \$100
27. Stewart Warner BARRADIO. 1946 Brown and ivory cased AM radio, Top has indentations to hold three decanters, a set of shot glasses, and a set of mixed drink glasses. Novel and useful set. Good working condition. \$75
28. Crosley Mini console Model 533. Only 31 x 21. Late 20's. You could almost put it on a shelf. Cute and working. Heavily "carved" molded composition wood grain front. \$100
29. General Motors Ashtray 1932, actually a complete radio front end to be run off to a remote amp. Man the things they came up with in the thirties. Still has the original green glass ashtray on top. \$100
30. Philco Mantle Clock Radio. Thirties. Electric clock, AM. Gd working cond. \$125
31. Erla cathedral with electric clock. Working cond. Cabinet finish could use a little repair, veneer good. Clock is easily removable from front as it is the old style Hammond that you have to spin a knob to start. Second hand. \$150
32. Radiokeg (that's the name on escutcheon) thirties radio built in real hooped and staved keg. 9 in diam 12 in long. Controls on one end, speaker grille and spigot on the other. Even the chassis is cut curved to fit the inside of the keg. Manufacturer unknown, from Chicago area. Very gd working cond. One of the most generally desirable of the novelty sets. \$250
33. Robin Hood cathedral. That's the only ident available. Name is on escutcheon. It appears American from use of standard brand parts, though possibly Canadian. Very good cond. and working. \$100
34. Atwater Kent Model 80 cathedral. Excellent cond, working. The hardest to find of the 80's series. \$125
35. Westinghouse WR-15 cathedral. Very gd, working \$45
36. Majestic model 15 cathedral Very gd working. \$45
37. RCA 128 AM SW tombstone cathedral. Good cond, working. \$45
38. U.S. Radio "Gloritone" cathedral. Good cond, working \$45

CALL OR WRITE Tom Rutherford

SEE ADS ON OTHER PAGES FOR DETAILS

WESTERN ELECTRIC

1. Model 7A amplifier. Working, with three 101F tubes. Very good condition, requires 120 vdc and 6 vdc for operation. \$150
2. Model 2A power supply (for use with 7A amp) Working with two 217 tubes, excellent condition. \$100
3. Model 25B AC powered amplifier, working with two 205 tubes, excellent, \$100
4. Model 10D horn speaker, 30 inches tall, working, very good condition, \$125
5. Model 4A Morning glory horn MICROPHONE, used to pickup widely dispersed sounds such as an orchestra. 15 inch ball. Black. Complete. \$100
6. Model 4A same as above except microphone element missing. \$65
7. Model 540AW inverted cone speaker, 18 inch cone. Very good working cond. \$65

E.H. SCOTT

1. Postwar Model 510 AMFMPhono in nice compact (36h x 32w x 18d) console. Excellent working condition. Uses Jensen coaxial speaker. Phono plays 33/45/78 with GE magnetic cartridge. Chrome chassis and excellent construction just like the pre-war Scotts. Chrome perfect. Owners manual included. \$150
2. Early thirties AW12 12 tube 4 band set in nice provincial style upright cabinet, Dual speakers. Chrome shows some pitting, average for early sets, set is working cabinet in good shape. \$175
3. Mid thirties 23 tube Allwave Imperial in Tasman upright cabinet. Working. Single woofer. Cabinet needs a bit of veneer repair. Chrome blistered though doesn't look bad.. Easily restorable. \$150
4. Late thirties Phantom Deluxe 28 tube AMFM, no cabinet, two chassis with great chrome, and 15 inch speaker. Working. \$225
5. Late thirties Phantom Deluxe 28 tube AMFMPhono in very good Sheraton console, with woofer, crossover, two tweeters. Complete, working, chrome excellent. \$350
6. Early forties Philharmonic 30 tube AM 10 control model, with remote control. Remote keyboard controls motor drive tuning and motor driven volume. Cable is included, needs some repair,. Housed in very good Warrington upright cabinet with authentically re-coned 15 inch speaker, crossover, and two tweeters. \$475

(ALL SCOTTS EXCEPT (4) SHIPPED MOTOR FREIGHT COLLECT. ADD \$25 CRATING CHARGE UNLESS YOU CAN PICK UP HERE.)

Radiola 16 DLSK MODEL. The 16 is the battery operated forerunner to the familiar 18, looks the same except shorter. The "desk" looks like one of those 28's up on legs. Because the 16 is smaller than the 28, there is room left in the front to form a writing surface. Very gd cond. Shipped motor ft. collect. \$10 crating. *** \$125

Silvertone one dial trf upright console Model XX as pictured in 1927 catalog, Has built in horn speaker, and battery compartment. Very good Condition, \$75*** Shipped motor freight collect. \$10 crating.

RCA Model 104 Floor standing speaker with built in power amp and power supply. Not only powers itself but can be used to power battery radio. Very good, working. Shipped motor freight collect. \$10 crating.

RCA Model 106 electrodynamic floor standing speaker, beautiful tapestry grille cloth in perfect condition. Speaker has its own built in field supply. Shipped motor freight collect. \$10 crating.

- ***Aeriola Senior, complete, very good condition, instructions in lid. \$125
- ****Matching Westinghouse amplifier, very good condition, no instructions \$125
- ***Baird Super early 8 tube, uses Samson rf, if, af, xfms, Reamlar tuning condensers. OIA set. Good condition. \$100
- ***Erie Balloon Coil TRF. Rare set uses air wound toroidal coils, look like big orange doughnuts. Three dial, OIA's. \$75
- ***Daven Resistance coupled amplifier unit, complete, gd. cond. Batt. op. \$35

CALL OR WRITE TOM RUTHERFORD, SEE ADS ON OTHER PAGES FOR DETAILS
Sets marked with asterisks (***) do not include tubes

1. National Monodyne one tube receiver with matching one stage amplifier, as shown on page 122 of Vintage Radio. *** \$125 Complete.
 2. National 1-10 with full set of plug-in coils. Excellent condition. \$95 ***
 3. National SW-3 with one plug-in coil, all tubes. Exc. cond, bottom cover missing \$75
 4. E.F. Johnson high voltage porcelain insulators, 5 inches tall. Good for projects like tesla coils. \$3 each.
 5. Old style barrier terminal strips, 11 position, brass hardware. \$2 each
 6. AMCO galena catswhisker detector \$25
 7. Camel back telegraph key and black&gold finish sounder mounted on wooden base marked (20 ohms L.C.T. & Co. 8 Day St. N.Y.) Working. Very gd.
 8. Bunnell Sensitive relay. 20 ohms, all brass mounted on wood attached to metal bottom piece. Working gd cond.
 9. Western Union Telegraph Co Polar Relay 6-B 600 ohm. Black metal base. Working Excellent condition
 10. Signal Electric Mfg. Co. SW37 sensitive relay 150 ohms. Black metal base. Working and good condition.
 11. Bunnell 4 ohm sounder on wooden base. Very good cond. Working!
- ITEMS 7 TO 11 DO NOT HAVE PRICES SIMPLY BECAUSE I HAVEN'T THE VAGUEST IDEA WHAT THEY ARE WORTH. I BARELY KNEW WHAT NAMES TO CALL THEM BY. PLEASE MAKE AN OFFER.
12. Model T type spark coil, working, people used to make spark transmitters out of these. Original, not reproduction. \$20
 13. E.I. Co. Spark coil. One Inch Bulldog. Excellent and working. \$100
 14. BIG 500 amp single pole knife switch. Could be used as "THE BIG SWITCH" in the shack. Bakelite base. \$20
MEDIUM 60 amp spdt knife switch on bakelite base \$10
KINDA SMALL, dpdt knife switch maybe 10 or 20 amp. Bakelite \$5 ea. several avail
SPRING-loaded antenna grounding switch on slate base, will handle any amateur transmitter in existence. \$20
 15. Old wooden insulator, looks like a mushroom, any ideas, ought to be worth \$5
 16. Black finish signalling buzzer, looks like telegraph equipment. \$5
 17. Brownlie catswhisker galena detector \$25
 18. Amrad "C" spark coil good cond. internal capacitors need replacing or use with external cap. \$75
 19. Century 1/4 hp elec motor old type, end feed brushes, works, needs new wires \$20
 20. Ramlar honeycomb coil base with assortment of 11 plug-in coils \$95
 21. Cylindrical crystal set, larger version of Pandora shown on page 69 of Vintage Radio. Unknown manufacturer. Very Good condition \$95
 22. Cambridge Botanical Supply spark coil. Vy, gd. \$50
 23. Manhattan Optical crystal set, double slide tuning. Vy gd. \$95
 24. Philmore crystal set in orig. box. \$35
 25. RADIOWUNDER crystal set, folds up to look like a small book, fairly gd cond \$25
 26. Cutler Hammer motor starting resistance box 12 amp capacity. \$20
 27. Speed-X spark key, nickel plate. \$25
 28. J-37 keys \$5 each
 29. Carborundum #30 detector, mounted, with condenser, bias pot, knob. \$10
 30. Neon Simplex 2 stage amp good cond. \$75
 31. Todd Elec Perpetuale Rechargeable B battery. Very good cond \$75
 32. Crosley 51 very good condition, complete \$85
 33. Clapp Eastham HRA one stage audio amp. pint size version of HZ. VY GD \$150
- TELEVISION
1. Hallcrafters T-54 Excellent condition, working, but could use a little help to bring things in better. Good raster. \$150
 2. Sentinel 6 inch looks more like an oscilloscope. Good shape. Good raster, needs some help up front for better signal. \$100
 3. Pilot 3 inch, one set complete minus crt, cab gd, needs small piece of plastic replaced, also included is complete spare chassis minus crt. \$125
 4. Admiral 12 inch, good cond. good raster, weak signal. \$50
 5. Philco Predicta, a set like this was advertised some months back in this paper so you can get an idea what this weird set looks like. Complete and working. \$125

CALL OR WRITE TOM RUTHERFORD, SEE ADS ON OTHER PAGES FOR DETAILS
Sets marked with asterisks(***) do not include tubes.

Rates for THE HORN SPEAKER
 One year.....\$5.50
 Two years.....\$11.00
 Special rates for one year
 (mailed in envelope)
 First class.....\$10.00
 Foreign Air Mail...\$16.00



Classified ad rate: 6¢ per word.
 Photo ads: \$2.00 extra.
 Deadline: 20th of the preceding month.

"Wishing you God's richest blessings at Christmas time and throughout the coming year. Merry Christmas to All!"
 Ed Howell WLSOD, "Electronics Trader" ad sheets, Box 73, Folly Beach S.C. 29439.

FOR SALE OR TRADE

FOR SALE: DIAMOND PHONOGRAPH NEEDLES FOR ALL MAKES AND MODELS. \$5.00 ea. PLEASE SEND OLD NEEDLE IF POSSIBLE, OR MAKE AND MODEL NUMBER OF PHONOGRAPH. STEEL NEEDLES ARE AVAILABLE IN PACKAGES OF 25 FOR \$1.00.
 RECORD CLEANING CLOTHS WHICH CONTAIN AN ANTI-STATIC SOLUTION ARE AVAILABLE FOR \$1.25 ea. ALL ITEMS ARE POSTPAID.
 ORDERS TO: KEITH ELECTRONICS, 209 BELLEFONTE AVE., LOCK HAVEN PA 17745.
 ALL NEEDLES CARRY A ONE YEAR FREE REPLACEMENT GUARANTEE. SEND YOUR ORDER TODAY..

FOR SALE OR TRADE



FOR SALE: Coca-Cola Cooler Radio, Model 5A410A. Excellent condition, plays well. Asking \$150. Will consider trade for antique dolls or toys.
 Herman Fothe, 10 Jackson St., Sloatsburg N.Y. 10974.

FOR SALE: AUTHENTIC REPLICAS: FRONT PLATES FOR AK VARIO COUPLERS, VARIOMETERS, TYPE 11 TUNER, DIATS, KNOBS, POINTERS, BINDING POST NUTS, PUSH BUTTONS, BELT DRIVE PULLEYS FOR AK AND MUCH MORE. SASE FOR LISTINGS.
 K. PARRY, 17557 Horace, Granada Hills CA 91344.

FOR SALE: BATTERY RADIOS and A.C. SETS. SEND S.A.S.E. FOR LIST.
 WANTED: PARTS FOR RCA RADIOLA IV, AND WD11's ANY CONDITION.
 Raymond Thompson, 7422 Cherry Tree Drive, Fulton, Maryland 20759.

FOR SALE: DE FOREST REPLICA PARTS, ALSO ONE ACMEFLEX RECEIVER, IT HAS THREE STAGES OF UNTUNED R.F., THREE STAGES OF REFLEXED AUDIO AMP. AND CRYSTAL DETECTOR. ALL OF THE TRANSFORMERS ARE GOOD, A VERY NICE SET \$90.00. Joe Horvath, 522 Third St., San Rafael CA 94901

FOR SALE OR TRADE FOR OUTSIDE HORN PHONOGRAPH. RCA VICTOR VE 8-4- Acustical sound AC motor delux console with doors clean. Call Chuck, 503 476-1070.

FOR SALE; RADIOS, SPEAKERS, TUBES, MAGAZINES, BOOKS, TESTERS, PARTS, Ask for list 1-80 SASE w/2-15¢ stamps and 50¢. Krantz, 100 Osage Ave., Somerdale N.J. 08083..

AK #20 Radio complete with #10 Horn Speaker, tubes and demonstrator batteries \$500.00.
 Lappin Radio, 210 N. Goodwin, Urbana IL 61801. Ph: 217 367-9912.

THOSE WHO BOUGHT A LEMCO REPLICA FROM ME CAN OBTAIN THE LID LABEL FOR A SASE.
 Bob, W6ME, 4178 Chasin St., Oceanside CA 92054.

November list of 300 old radio items. SASE and dime.
 Chester Wisner, 1014 Main, Dalton, Mass. 01226.

FOR SALE OR TRADE

RADIOLA VIII console cabinet, stripped to refinish. Excellent condition. Also separate Radiola VIII chassis, less tubes. Offer or trades. Baldwin head phones, broken green cord, excellent, \$20. Also some E. H. Scott receivers, console cabinets, good condition, with tubes, not restored. Offer? Have bound copy 1916 Electronic Experimenter Jan-June, brown leather, mint. Offer?
 S. A. Cisler, P.O. Box 1644, Louisville KY 40201. Mail only SASE..

FOR SALE: OLD RADIO'S, TUBES, HORNS, SPEAKERS, RADIO PAPER, TUBE TESTERS, PLUS MORE. LIST 1-80 50¢ PLUS LARGE SASE W/2-15¢ STAMPS.
 KRANTZ, 100 OSAGE AVE., SOMERDALE N.J. 08083..

Antenna, RF Osc coils, 175KC or any other popular frequency. (New Old stock) \$2.00ea.

I.F. transformers, 175KC or any other popular frequency (new old stock) \$2.50ea.

Any tube from the 20's, 30's, 40's or 50's (if we donot have it in stock we will do our best to get it for you). State your preference as to new or used tubes. Write for a quote.

Exact replacement handles for Radiolas II and VIII. \$4.50.
 Resistor Line Gords for 4 or 5 tube sets requiring a resistance cord range of 160 to 180 ohms and using 0.3 amp. tubes. (Made \$4.50 to order).
 Most Olde Tyme Radio schematics. Please furnish us with make, year and Model number. \$1.50. Write Olde Tyme Radio Test Equipment. All items plus shipping.
 Order from: Olde Tyme Radio Co., 2445 Lyttonville Rd., Silver Spring MD 20910

ANTIQUA SHOW AND FLEA MARKET, LIMITED TO: RADIOS, PHONOGRAPHS, MECHANICAL MUSIC AND TOYS. TO BE HELD DECEMBER 8th AND 9th AT BOEFF HALL, NAVAPRE, OHIO. DEALERS AND COLLECTORS NOTE: FREE SET-UP SPACE! FOR MORE INFORMATION CALL: JEFF KRAUS, 424 COLUMBIANA, NAVAPRE, OHIO 44662. TELEPHONE: (216) 879-5083..

FOR SALE: 71-A tubes. Guaranteed new in original war surplus boxes. \$5. each post paid. Will also trade equivalent worth for WD-11, WD-12, Daven or DeForest tubes in good working condition. C. Kirsten, 604 Fremont St., #1, South Pasadens CA 91030..

FOR SALE OR TRADE: Atwater Kent parts 1927 - 1930, technical help, early electric specialists.
 Vintage Radio Shop, 1419 - 8th St., Rockford IL 61104.
 Telephone: 815 964 3221..

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"Radios that Work for Free" is a "How to" book for all ages. This is the most comprehensive work of its kind. Not only does the reader get a new hobby, but the skills necessary to continue in a science and art that needs revival. The projects can be built from recycled junk on the kitchen table by the novice with assured success. Years of research and countless hours of experimentation have been accumulated to provide this base for the beginner. You will fill many hours building, listening and experimenting with "Radios that Work for Free."

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FOR SALE OR TRADE

FOR SALE: LEE DE FOREST LABORATORIES
...Medical machine "1928" 2-211's &
2-866 tubes in MOPA CKT. \$50., 50
pounds. LEMCO "1926" reflex Rcvr.
as is \$40.00.
R. Zelenack, 985 W. 3rd Ave.,
Escondido CA 92025.

RADIOS 1929-1950 floor and table
models all working. Some parts
send for list SASE.
Willis D. Housel, 1640 South 38th
St., Lincoln NB 68506.

FOR SALE: 50 back issues HORN SPEAKER
since 1973, AK-20 Compact, good to
excellent, prime battery cable, ant.
tuning knob broken and one audio open-
pri. Complete with five good 201a
tubes. Offer? Will ship.
Westley M. Chatellier, 1950 Chevelle
Dr., Baton Rouge LA 70806.



ATWATER KENT CATHEDRAL \$225.
15 more cathedral radios \$50. up.
ZENITH VIII \$650.00. AK BREADBOARD
\$550.00. SPARTON with Kellog tubes
\$325. 20 more battery radios \$25 up.
60 old televisions \$65. up. Parts
of 14 old junk phonographs Standard
Fireside Homes, Victors, others.
300 gears, boxes of parts \$575.00 for
all AS IS. Send \$1.00 for lists.
Chuck, 925 Starlite, Grants Pass
Oregon 97526. Ph: 503 476-1078.

FOR SALE: Cathedral, battery and AC
radios from 1920's and 1930's.
Please send large envelope with two
stamps.
J. Albert Warren, Box 279, Church St.,
Waverly PA 18471.....

FOR SALE OR TRADE: QST's from
1916, CQ's from 1946, Handbooks,
call books. Radio magazines
and books, Catalogs, old Radio
tubes and radio parts. List for
SASE. Erv Rasmussen, 164
Towell St., Redwood City CA
94062.

Philco table model, #610 chassis,
one knob missing, otherwise complete
but not working, \$25.00.
Echophone EC-1A, works, AC hum, other-
wise perfect, \$24.00.
Vibroplex, perfect, \$17.00. RCA
Victor 45 RPM player, perfect \$12.00.
Brandes headphones, perfect \$12.00.

FOR SALE OR TRADE

Westinghouse electrical supply catalog,
1,444 pages, 1920, perfect, \$12.00.
Old General Radio Decade Resistance
Box, walnut, perfect, \$17.00.
Potentiometer from National Bureau of
Standards, Rubicon, walnut cabinet,
perfect, \$45.00. Please include post-
age. J. Denny, 2929 N. Westmoreland,
Arlington, Virginia 22213.

PLEASE TAKE NOTE IF:
You are restoring a prized antique
battery radio. We can supply 3, 4
or 6 conductor battery cable housed
in an Atwater Kent style brown cloth
knitted sheath. All conductors
contained in these cables are cloth
insulated and color coded. These
cables may be used to replace your
present torn and tattered battery
cables without destroying the original
appearance of the items you wish to
restore.

The prices are:
6--conductor cable \$1/ft.
4--conductor cable .75/ft.
3--conductor cable .50/ft.
For those collectors restoring AC
sets we have brown silk style power
cord.
All items are plus shipping.
Olde Tyme Radio Co.
2445 Lyttonville Rd.
Silver Spring MD 20910.

WANTED

AIRLINE Model 62-476 or 62-606 or
62-616.
Clarence Smith, 17845 - 144th Ave.,
Spring Lake MI 49456.
Phone (616) 842-8517.

WANTED--operating manual for
Eicotube tester Model # 666.
Frank Hoffert, 19605 Chardon Road.,
Cleveland, Ohio 44117.

WANTED: The microphone cable con-
nector plug for WE-630 8-Ball, and
the WE-639 Cardiod. Also need the
Cannon connector plug for the RCA
50-A Inductor. Also want any early
Broadcast Remote Amplifiers such as
the NBC ND-10, RCA OP-5 and OP-6,
WE-22A, WE-23A or other similar e-
quipment. Still looking for Early
RC Mics. for a museum. Ralph G.
Maddox, Purgitsville WV 26852.
Telephone: 304 289-3069..

WANTED TO BUY: Early electrics
and cathedrals (non-working).
Contact: Vintage Radio Shop,
1419- 8th St., Rockford IL
61104. Phone: 815 964 3221..

WANTED: CAR RADIOS 1929-1957
ORIGINAL TYPES. ALSO ANY PARTS,
LITERATURE AND ASSOCIATED ITEMS,
VIBRATORS, ANTENNAS ETC. CASH PAID.
PLEASE PRICE AND DESCRIBE.
MARVIN ROTH, 14500 LABELLE, OAK
PARK, MICHIGAN 48237....

WANTED

WANTED: Philco 90 cathedral,
AK 80 cathedral and other AK
cathedrals. Also need metal b
back-top for AA-1400 of a
Radiola VI.
Charles Green, 5225 Broadway,
Great Bend KS 67530.
316 793-7973..

I need a fine tuning variable con-
denser for a DeForest D-10 any
leads?
Joe Horvath, 522 Third St., San
Rafael CA 94901.

NEED PARTS FOR SILVER MASTERPIECE
AND SMALL CLAPP EASTHAM HORN.
Cecil Bounds, Pine Springs Rte.,
Carlsbad N.M. 88220.

WANTED AK BREADBOARDS and outside
HORN PHONOGRAPHS. Pay \$100 to \$1000
each or trade groups of old radios
for them.
Chuck, 925 Starlite, Grants Pass,
OR 97526. Phone: 503 476-1078.

WANTED: Philco model 90 Cathedral
in good restorable condition.
Want power supply cover for AK 40.
Want wiper arm and good transformer
for Radiola III. Gene Densmore,
2125 Cambridge Drive, Tallahassee,
FL 32304. Phone: 904 576-2125..

WANTED: Power transformer for
Radiola 60, Power supply for At-
water-Kent 36.

OR SALE: Freshman N \$15.00 plus
shipping. Hundreds of tubes 50¢.
SASE for list.
Harbeck, 1316-38th, Sioux City,
Iowa 51104.

WANTED: Viking Valiant II, will
trade National SW5 with tubes.
Fenton Wood, 3122 Ann Arbor,
Sugarland TX 77478.

WANTED, Tube socket for a Crosley
Pup.
Jack Emery, Box 84, Lexington,
Michigan 48450.

WANTED: Philco 90 cathedral, AK 20
cathedral and other AK cathedrals.
Also need metal back-top for AA-1400
of a Radiola VI.
Charles Green, 5225 Broadway, Great
Bend KS 67530. Ph: 316 793-7973..

NEEDED: 2 AF transformers for AK
Model 20.
E.J. Lofquist, 2612 NW 96 St.,
Seattle WA 98117.
Phone: 206 782-6343

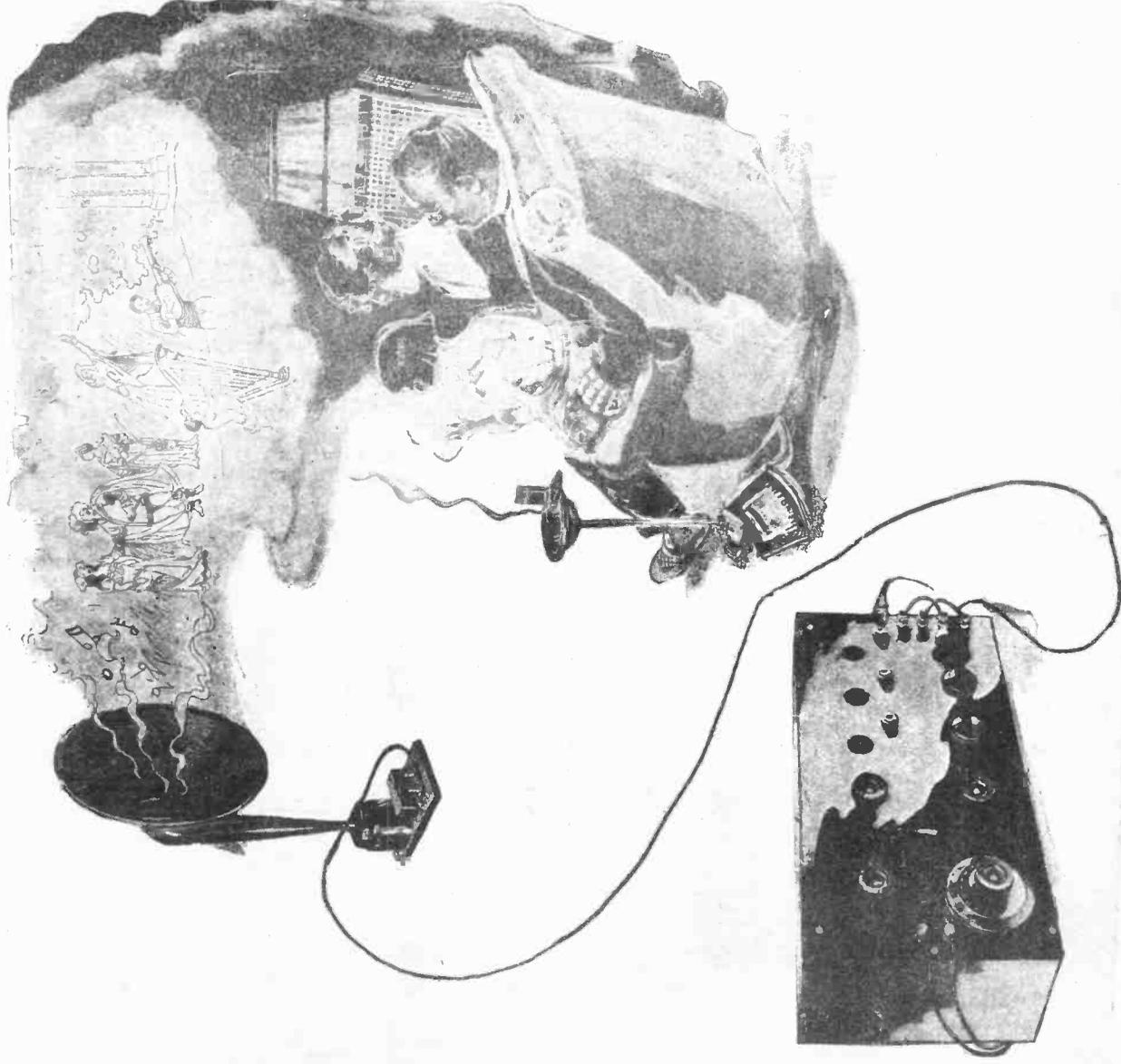
WANTED: RCA power-audio chassis as
used in 1926 radio/phono combos and
in Radiola 28 AC model. Three or
four tube unit OK. See Riders V. 1,
p. 485, 506-510 for details. Also
want RCA horseshoe magnet phono
pickup head working or not.
Jerry Newton, Rt. 1, Box 262,
Woodland CA 95695.

DECEMBER

THE HORN SPEAKER

1979

Merry Christmas Happy New Year



Mr. Gary B. Schneider
6818 Commonwealth Blvd.
Parma Hts. OH 44130

3-80

PUETT ELECTRONICS

PUBLISHERS OF P.O. BOX 28572 DALLAS TEXAS 75228

ANTIQUE RADIO TOPICS &
THE CLASSIC RADIO NEWSLETTER

LIST NO. 18A

how to order:

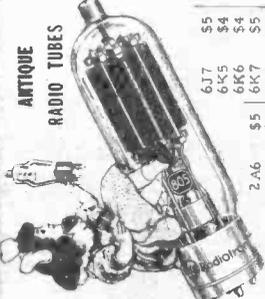
- ALL ORDERS ARE POSTPAID AND INSURED. THE PRICE OF ALL ITEMS INCLUDES POSTAGE AND INSURANCE CHARGES.
- TEXAS RESIDENTS ONLY - ADD 5% STATE SALES TAX.
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1A5	\$4	6L5	\$6	50C5	\$4	50C5	\$4
1L4	\$4	6L6	\$6	50L6	\$4	50L6	\$4
1L5	\$4	6X4	\$4	6U6	\$5	6U6	\$5
1L6	\$4	6X5	\$4	6V6	\$5	6V6	\$5
1L7	\$4	6X6	\$4	6W6	\$5	6W6	\$5
1L8	\$4	6X7	\$4	6Z5	\$5	6Z5	\$5
1L9	\$4	6X8	\$4	6Z6	\$5	6Z6	\$5
1L10	\$4	6X9	\$4	6Z7	\$5	6Z7	\$5
1L11	\$4	6X10	\$4	6Z8	\$5	6Z8	\$5
1L12	\$4	6X11	\$4	6Z9	\$5	6Z9	\$5
1L13	\$4	6X12	\$4	6Z10	\$5	6Z10	\$5
1L14	\$4	6X13	\$4	6Z11	\$5	6Z11	\$5
1L15	\$4	6X14	\$4	6Z12	\$5	6Z12	\$5
1L16	\$4	6X15	\$4	6Z13	\$5	6Z13	\$5
1L17	\$4	6X16	\$4	6Z14	\$5	6Z14	\$5
1L18	\$4	6X17	\$4	6Z15	\$5	6Z15	\$5
1L19	\$4	6X18	\$4	6Z16	\$5	6Z16	\$5
1L20	\$4	6X19	\$4	6Z17	\$5	6Z17	\$5
1L21	\$4	6X20	\$4	6Z18	\$5	6Z18	\$5
1L22	\$4	6X21	\$4	6Z19	\$5	6Z19	\$5
1L23	\$4	6X22	\$4	6Z20	\$5	6Z20	\$5
1L24	\$4	6X23	\$4	6Z21	\$5	6Z21	\$5
1L25	\$4	6X24	\$4	6Z22	\$5	6Z22	\$5
1L26	\$4	6X25	\$4	6Z23	\$5	6Z23	\$5
1L27	\$4	6X26	\$4	6Z24	\$5	6Z24	\$5
1L28	\$4	6X27	\$4	6Z25	\$5	6Z25	\$5
1L29	\$4	6X28	\$4	6Z26	\$5	6Z26	\$5
1L30	\$4	6X29	\$4	6Z27	\$5	6Z27	\$5
1L31	\$4	6X30	\$4	6Z28	\$5	6Z28	\$5
1L32	\$4	6X31	\$4	6Z29	\$5	6Z29	\$5
1L33	\$4	6X32	\$4	6Z30	\$5	6Z30	\$5
1L34	\$4	6X33	\$4	6Z31	\$5	6Z31	\$5
1L35	\$4	6X34	\$4	6Z32	\$5	6Z32	\$5
1L36	\$4	6X35	\$4	6Z33	\$5	6Z33	\$5
1L37	\$4	6X36	\$4	6Z34	\$5	6Z34	\$5
1L38	\$4	6X37	\$4	6Z35	\$5	6Z35	\$5
1L39	\$4	6X38	\$4	6Z36	\$5	6Z36	\$5
1L40	\$4	6X39	\$4	6Z37	\$5	6Z37	\$5
1L41	\$4	6X40	\$4	6Z38	\$5	6Z38	\$5
1L42	\$4	6X41	\$4	6Z39	\$5	6Z39	\$5
1L43	\$4	6X42	\$4	6Z40	\$5	6Z40	\$5
1L44	\$4	6X43	\$4	6Z41	\$5	6Z41	\$5
1L45	\$4	6X44	\$4	6Z42	\$5	6Z42	\$5
1L46	\$4	6X45	\$4	6Z43	\$5	6Z43	\$5
1L47	\$4	6X46	\$4	6Z44	\$5	6Z44	\$5
1L48	\$4	6X47	\$4	6Z45	\$5	6Z45	\$5
1L49	\$4	6X48	\$4	6Z46	\$5	6Z46	\$5
1L50	\$4	6X49	\$4	6Z47	\$5	6Z47	\$5
1L51	\$4	6X50	\$4	6Z48	\$5	6Z48	\$5
1L52	\$4	6X51	\$4	6Z49	\$5	6Z49	\$5
1L53	\$4	6X52	\$4	6Z50	\$5	6Z50	\$5
1L54	\$4	6X53	\$4	6Z51	\$5	6Z51	\$5
1L55	\$4	6X54	\$4	6Z52	\$5	6Z52	\$5
1L56	\$4	6X55	\$4	6Z53	\$5	6Z53	\$5
1L57	\$4	6X56	\$4	6Z54	\$5	6Z54	\$5
1L58	\$4	6X57	\$4	6Z55	\$5	6Z55	\$5
1L59	\$4	6X58	\$4	6Z56	\$5	6Z56	\$5
1L60	\$4	6X59	\$4	6Z57	\$5	6Z57	\$5
1L61	\$4	6X60	\$4	6Z58	\$5	6Z58	\$5
1L62	\$4	6X61	\$4	6Z59	\$5	6Z59	\$5
1L63	\$4	6X62	\$4	6Z60	\$5	6Z60	\$5
1L64	\$4	6X63	\$4	6Z61	\$5	6Z61	\$5
1L65	\$4	6X64	\$4	6Z62	\$5	6Z62	\$5
1L66	\$4	6X65	\$4	6Z63	\$5	6Z63	\$5
1L67	\$4	6X66	\$4	6Z64	\$5	6Z64	\$5
1L68	\$4	6X67	\$4	6Z65	\$5	6Z65	\$5
1L69	\$4	6X68	\$4	6Z66	\$5	6Z66	\$5
1L70	\$4	6X69	\$4	6Z67	\$5	6Z67	\$5
1L71	\$4	6X70	\$4	6Z68	\$5	6Z68	\$5
1L72	\$4	6X71	\$4	6Z69	\$5	6Z69	\$5
1L73	\$4	6X72	\$4	6Z70	\$5	6Z70	\$5
1L74	\$4	6X73	\$4	6Z71	\$5	6Z71	\$5
1L75	\$4	6X74	\$4	6Z72	\$5	6Z72	\$5
1L76	\$4	6X75	\$4	6Z73	\$5	6Z73	\$5
1L77	\$4	6X76	\$4	6Z74	\$5	6Z74	\$5
1L78	\$4	6X77	\$4	6Z75	\$5	6Z75	\$5
1L79	\$4	6X78	\$4	6Z76	\$5	6Z76	\$5
1L80	\$4	6X79	\$4	6Z77	\$5	6Z77	\$5
1L81	\$4	6X80	\$4	6Z78	\$5	6Z78	\$5
1L82	\$4	6X81	\$4	6Z79	\$5	6Z79	\$5
1L83	\$4	6X82	\$4	6Z80	\$5	6Z80	\$5
1L84	\$4	6X83	\$4	6Z81	\$5	6Z81	\$5
1L85	\$4	6X84	\$4	6Z82	\$5	6Z82	\$5
1L86	\$4	6X85	\$4	6Z83	\$5	6Z83	\$5
1L87	\$4	6X86	\$4	6Z84	\$5	6Z84	\$5
1L88	\$4	6X87	\$4	6Z85	\$5	6Z85	\$5
1L89	\$4	6X88	\$4	6Z86	\$5	6Z86	\$5
1L90	\$4	6X89	\$4	6Z87	\$5	6Z87	\$5
1L91	\$4	6X90	\$4	6Z88	\$5	6Z88	\$5
1L92	\$4	6X91	\$4	6Z89	\$5	6Z89	\$5
1L93	\$4	6X92	\$4	6Z90	\$5	6Z90	\$5
1L94	\$4	6X93	\$4	6Z91	\$5	6Z91	\$5
1L95	\$4	6X94	\$4	6Z92	\$5	6Z92	\$5
1L96	\$4	6X95	\$4	6Z93	\$5	6Z93	\$5
1L97	\$4	6X96	\$4	6Z94	\$5	6Z94	\$5
1L98	\$4	6X97	\$4	6Z95	\$5	6Z95	\$5
1L99	\$4	6X98	\$4	6Z96	\$5	6Z96	\$5
1L100	\$4	6X99	\$4	6Z97	\$5	6Z97	\$5
1L101	\$4	6X100	\$4	6Z98	\$5	6Z98	\$5

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BOOKS, BOOKLETS, LISTS & DATA

- Booklets listed in (1) thru (5) below are \$2, each, 3 for \$5, 4 for \$6, or 5 for \$7.
- The Acquisition Of Antique Radios by J. W. F. Puett
 - The Complete Restoration of Battery Powered Antique Radios by J. W. F. Puett
 - The Complete Restoration of AC Powered Antique Radios by J. W. F. Puett
 - When Was That Old Tube Made? by James R. Wilkins
 - Antique Radio Tube Substitution by J. W. F. Puett
 - SILVER GHOSTS by J. W. F. Puett (history of E. H. Scott) \$8.95
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 - The PUETT ELECTRONICS Super Antenna - Ground System Plans \$2.00
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