Anyone who has taken a radio operator's examination has gone through the agonizing torture noted in the above picture. It is a cover reproduction Vol. 1, No. 1 of KEY KLEX magazine, a short-lived house organ published by American Sales Company of New York City (November, 1930).
The Secretary of the Smithsonian Institution
The Director of The National Museum of History and Technology
and the Postmaster General

cordially invite you to attend a Philatelic Dedicatory Lecture

ADVANCES IN COMMUNICATIONS

to be given by Mr. Bruce Kelley, Curator
The Antique Wireless Association of Holcomb, New York
on Tuesday evening, the tenth of July at eight o'clock

in the auditorium of The National Museum of History and Technology
Constitution Avenue at Fourteenth Street, Northwest, Washington City

Please reply by the enclosed card

Please present this invitation

guests must be present by 7:45 p.m. otherwise seats will be given to those without invitations

The Association can feel proud that one of its members was recently selected to participate in the dedication of the four postage stamps covering the "Progress of Electronics" (See page 12 of June OTE). The audience was well represented by members as Kelley briefly summarized the history of communication using material from A.W.A. archives. The above copy is the invitation sent to members and interested guests.

AMATEUR WIRELESS STATIONS
IN THE BOSTON AREA

Bill Gould, K2NP, sent AWA a copy of a call book issued by the Harvard Wireless Club in 1912. It turned out to be a fascinating little book and was a good indicator what wireless was like in the early years.

The Boston area must have been a hotbed of QRM from both commercial as well as amateur stations. Dozens of amateur calls were listed -- many with the owner's initials and some listing 3 KW power!

Several non-private stations were also noted such as Tufts Wireless Association, Consolidated Wireless Company, Boston Telegraph Institute and the Clapp-Eastham Co. who used the single letter "G" as their call letter...

ADAMS-MORGAN PARAGON RA-10

Basic circuit for the famous RA-10. A loading coil is provided for both primary and secondary circuits and cut in or out of the circuit by switch SW for use with either high or low wavelengths. The RA-10 is only a tuner. This circuit shows a vacuum tube detector which is a separate unit.
WNY Hamfest & VHF Conference

Harry Dannals (W2UK) President of A.R.R.L. (left) and F.C.C. Head Prose Walker (W4BW) examine the Association's W2AN 1229 transmitter at the club's booth as A.W.A. Officers Gardner (W2BGN) and Breilsford (K2W) look on. The transmitter reminded Dannals of equipment once used by his father, a well-known radio operator of the early days. The display, including various receivers assembled by Lauren Peckham's committee, were all familiar to Prose since he too has been active since the mid '20s.

Between the lines

About six June Bulletins were printed with pages 4 and 29 covering a school board political ad. Seems our printer (and a darn good one) was trying out his printing press and inadvertently ran a few of these copies on his trial run which ended up in the OTEB. So far we've replaced 2 Bulletins. We'll of course replace all misprints. Sorry.

Bottom of page 26 of the same OTEB tells of postage stamp commemorating DeForest Audion. This is incorrect copy in both substance and date. Seems a group were promoting such a stamp in 1956 (50th Anniversary) but the Post Office Department does not recognize living celebrities. DeForest died in 1961. Result: no DeForest Audion stamp.

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NEW GEAR AT A.W.A.

TUBES: W2EB, W2EMX, W2SHN and the American Museum of Electricity
RECEIVERS: W2SHN, W2DG, W4JT
TRANSMITTER: W2RCK
TELEGRAPH EQUIP.: W3EEF and American Museum of Electricity
WRITTEN MATERIAL: W2OER, W2WX, W3EEF
HISTORICAL SLIDES: Jack Allison

50TH ANNIVERSARY
QSO LISTING

This list will appear in the June and December Bulletins. The objective is to contact a station you worked 50 or more years ago. Send Ken Gardner former and present call letters and original QSO date.
NEW MEMBERS

who are or have been in the communication field..........  
RICHARD BRIGGS, W1BVL, ex-1GW  
Sr. Elect. Engineer  
KEN BLAKEMAN, General Electric Co.  
RICHARD MANN, W0HP, G.T.E., Sylvania  
JOHN CLAPPERS, WIFPM, ex-DHAYK, KH6CV,  
W2FET, etc. U.S. Signal Corp, Mitre Corp.  
ALFRED GHIRARDI (see below)  
LOUIS PFETTER, W2CDS, x-W1RNP, etc.  
NEA: Rocky Point, Riverhead and  
Boundbrook.  
JTM COWLEY, W1JKS Sanders Associates  
ROB HANER, W2AB, ex-W2FRA General  
Railway Signal  
IRA WITTHAUS, Univ. of Missouri  
C.E. COULBY, VE1KX, C.N. Telecoms  
BOB SMITHERS, W5PFH, Chief Eng. of  
WJUX/W1BP, Westinghouse  
DANIEL PANACK, W9HM, Station KXIX  
Electronics Instructor  
DON MASTEN, W2LEL, IBM Research Lab,  
Former commercial "op"  
ROY CONNELL, W0DE, Dept. of Defense  
DAVE REES, K5Jul (ex-W7GH) Stat. KW5D  
ROBERT JONES, ex-W2TE, Forl-Philco  
BOB HARRIS, K0VY, ex-W5ACT, NECR.KSOO,  
U.S. Navy and commr. "op"  
CHARLES HINKLE, K6XT, ex-W6AQX  
WOODY COOK, W9GBS, ex-9CVR, E.E. G.M.C.  
BILL LEWIS, W2BCU Commr. Marine "op",  
C.B.S. TV/FM/AM  
NICK SUPCHIC, Sanders Associates  

ALFRED A. GHIRARDI  
The above name familiar? It should be to both old time engineers and book/magazine collectors for he is past editor of several well known radio and engineering magazines and author of numerous books and radio manuals for a period of nearly 50 years.  
The Antique Wireless Association welcomes Ghirardi as a member and hopes he may find it convenient to attend an AWA conference and relate some of his experiences in the publishing business.  
The Association also welcomes two more members outside the states: VE1ER and VK2AAl. Albert McQuoid (VE1ER) is a blind amateur in St. Andrews, New Brunswick, Canada. In spite of his handicap, Al finds great interest in historical radio and on a recent visit to the A.W.A. Museum had an opportunity to "see" dozens of early receivers.

A.W.A. HISTORICAL MUSEUM FUND  
At last! the Association is on the final road to having a public museum. It will be the only museum of its kind in the country -- a public museum devoted entirely to radio and electronic equipment operated by a non-profit group of amateurs.  

There is much to be done. The building is in the process of being restored by the Town Historical Society (see page 21, March 1972 OEB). A.W.A. will share a section of the second and third floors with the option of creating a separate building if sufficient funds are available at a future date. There will be a need to build interior walls, display areas and install all new electrical wiring. This is a challenge to the finance committee with present day building costs.

It has been decided not to have a hard driving fund raising campaign. Members who have the spirit and desire to preserve and display historical equipment may donate to the fund which had a rousing start from pioneer radio astronomer Crote Reber.

Recognition will be given to contributions of $50.00 or more by an engraved plaque with the donor's name permanently mounted on a show case or display area. All contributions of any amount are tax-deductible for I.R.S. purposes. Make a check out to: A.W.A. MUSEUM FUND and mail to Treasurer Lincoln Cundall, 69 Boulevard Parkway, Rochester, N.Y. 14612.

NAVAL RESEARCH LABORATORY  
Howard Lorensen, W3ZL, has devoted considerable time gathering material and compiling the history of the Naval Research Lab. The end result will be a fascinating history of one of the world's pioneer radio centers and their contributions to communication. The slide show will prove of interest to both laymen and engineers and be excellent program material for radio clubs including, of course, a future A.W.A. Mect. More later.
WITH THE COLLECTORS

Lauren A. Peckham
Ormiston Road
Breensport, N.Y. 14816

JOHN ELMWOOD (Lancaster, Ca.) has a nice key collection including an unusual early French spark key made by Ducretete-Roger of Paris.

GAY EWING (Breensport, N.Y.) has added a mint condition Crosley Pop to his collection.

JOHN NOBLE (Metairie, La.) finds early radio equipment is very difficult to locate in his area. He is spending many hours restoring sets already in his collection such as AK-10B, Fred-Eisemann NR-7, Dayton XL-10, etc.

AL LANE (Kansas City, Mo.) had some fantastic luck at a local garage sale where he picked up an AK-10B, Clapp-Eastham HR and EZ plus early tubes and parts.

JOE HORKATH (San Rafael, Ca.) goes in for nicely early gear such as Murdock "sliding book" type variable condensers, Iron Pyrite detectors plus two Duck catalogs.

JOE HALEY (Milwaukee, Wisc.) is a new AWA member who is very interested in collecting B.H. Scott receivers. He spends most of his time getting these fine sets in order.

LAUREN PECKHAM (Breensport, N.Y.) now has a beautiful spark coil made by Newton of London, England in 1899. Other items include several rare tubes including a nice 6.B. "U" tube.

BASIL ABBOTT (Mechanicsville, Va.) is another AWA member who has found equipment made by Radio-Craft. This particular unit has a tuner and detector unit housed in separate cabinets. Other sets for Basil are Croxley 51 and an UltraDryne by Phenix Radio Corp.

GARY MOCANIN (Manchester, Mo.) recently found a RCA Model 20 at an auction. In addition two Philco Model 10 automobile receivers dating back to 1933.

FRANK NICHOLS (Appleton, Wis.) really hit the jackpot when he located the following rare Western Electric gear: 4-D receiver with 2-B tuner and loop, 25-B, CW-926 and a 7-A amplifier plus various W.E. tubes.

MARSHALL LOWENSTEIN (W. Lafayette, Ind.) bought a rare magnavox speaker recently. The plate is marked "Type M-1, Model A". This could be their first model.

EVERETT HEMING (Lansing Mich.) came out with a winner recently when he located a rare DeForest Commercial Receiver Type RS-501 using a single tubular Audion. Other than a couple missing parts it is complete with nameplate.

DAVID PECKHAM (Breensport, N.Y.) is a now AWA member who already is building up a nice collection of early tubes and broadcast receivers. He is 12 years old.

FLOYD IYONS (Elks Club, Oakand, Ca.) sent AWA a recent list of his vacuum tubes and light bulbs. It had the appearance of a catalog! A visit to his museum is a must for the tube collector.

BOB FABRI (San Jose, Ca.) just picked up another Scott set. Bob and Curly England are the "classic" set collectors on the West Coast.

BEN FREELAND (WJOJW, Pittsburg) surprised us by sending several excellent pictures of his tube museum and inventory of his collection. Indications are he has been collecting for some time. Ben has lots of swapping material.

DICK PHELPS (W2WX) is not exactly a collector but he is the possessor of many prize magazines and pictures. Dick sent AWA a series of United Wireless "Aerograms" printed in 1911 for passengers on ships equipped with U.W.T. gear. Good reading and valuable material for the archives.

NOTICE: Write and tell me what you're doing in the collecting field--let us build up this column. Our next deadline is July 12.

--- Lauren Peckham
By the choice of name, no inference is intended that all parts employed date back to 1925, although the majority of the major components do; the oldest, in fact, bears a name plate dated 1915. In view of contest requirements, no commercial component made after 1939 is used; but it has been considered permissible to use where necessary hand made replicas of certain items such as crystals and choke coils, for example.

The designation "Model 1925" is intended primarily to signify that in the construction of the transmitter no component is employed which is of a type not well-known and readily available in that year; likewise, the circuit design involves no techniques not generally known and in use in 1925.

This latter stricture is not anywhere near as severe as is commonly believed. In fact, the impelling purpose behind the whole project is to illustrate forcibly that the real "technological explosion" in the electronic field had occurred during and immediately following WW-1; and that during the mid-twenties a first-line type of transmitter generated a signal which would be adjudged first-rate by today's standards. A great deal of effort, paralleling the transmitter design, has gone into locating unimpeachable source material by which to document use of certain circuit developments persistently and erroneously regarded in many circles as of much more recent origin.

The transmitter design is patterned in part after the exciters of RCA developmental transmitters in use at Rocky Point and Bolinas in 1924-25, and in part after the Marconi P8 spark set as converted to tubes and re-designated the RCA ET-2628. In the finished version of the transmitter, a pair of Marconi MT-16 pure tungsten triodes will be used in a push-pull neutralized final amplifier.

To date, only a strictly breadboard version of the exciter portion has been assembled, resting in the frame in which the complete transmitter will be housed. The present line-up features a VT-2 crystal oscillator, with X-cut crystal working at 896 kc/s; VT-2 first doubler; and W.E. 211-A second doubler (which ultimately will drive the MT-16's). The main rectifier uses a pair of UV217-A's, with primary keying of the 1915 Marconi type D-16 2 KW 500 cycle spark transformer, driven by a Holtzer-Cabot type DI ½ KW motor generator. The MG, in turn, is fed from the 120 volt D.C. "ship's mains." (The latter source, not surprisingly, is simulated by a modern silicon power supply delivering 120 volts D.C. at 10 amperes.) In the low-voltage rectifier is a pair of 210's, with grids strapped to plates, serving in lieu of non-available UV216-A's.

The motor generator is at present merely set on the floor in front of the transmitter, along with its hand starter and field rheostats. This type of machine was widely used during WW-1 in the Navy Standard ½ KW 500 cycle quenched spark sets for submarines and small craft. The unit with 3 bushings, behind the MG, is
Preliminary test assembly of the WIDM "Model 1935" transmitter with breadboards inserted in the frame which will house the permanent assembly with a pair of Marconi MT-16 triodes. Note the General Radio Type 224 Precision Wavemeter on the top deck and the starting box rheostat barely visible on floor in front of MG.
the Marconi spark transformer; the 3rd bushing indicates that this unit had been modified by paralleling groups of secondary pies and bringing out a center tap, as in the ET-3628 conversion. Behind the large filter condensers on the center deck may be seen a Leach break-in relay, a standard equipment for shipboard use in the 20's. And, atop the transmitter, the inevitable General Radio Co. Type 224 Precision WaveMeter.

Next February, if it be completed .........look out!

1 An excellent technical and historical treatment is found in "Short-Wave Commercial Long Distance Communication," H.E. Hallborg et al., Proc. I.R.E. Vol. 15 No. 6, June 1927.

2 See, for example, Figs. 342 and 343a, Radio Telegraphy & Telephony, Duncan and Drew, John Wiley & Sons, Inc., 1929.
RESTORING OLD EQUIPMENT

How did you SOLVE a problem when restoring an old receiver? Drop us a note telling how you did it.

Radiola III
by Bob McIntyre, VE4ZX
Winnipeg, Manitoba

A.W.A. members may be interested in how I polish the panel and repaint the numbers on the popular Radiola III and similar sets.

The tools needed are: electric drill, 6" dia. cotton buffer with arbor, some buffing compounds of different grades such as RED ROUGE (finest) TRIPOLI BROWN ROUGE (the most suitable for polishing), WHITE ROUGE and BLACK EMERY CAKE (which is very coarse suitable for deep marks) and a "MARKAL PAINT-STICK" for painting the numbers. I found these items at a local industrial supply house.

The first step is to remove all the components from the panel. Find a helper to hold the panel firmly on the table and with the buffer turning, apply some Tripoli to it. Give it reasonable pressure and move it back and forth over the panel. Do not hold the buffer in the same place as you are liable to damage the surface. With coarser compounds, it may be wise to first try it on the back of the panel to see how it works. After polishing, wash the panel clean with a soft cloth.

If the paint in the numbers is in poor condition, take a sharp instrument like a jeweler's screwdriver or a sharp pick and gently remove the old paint. Rub the paint stick over the numbers and letters and then wipe off the surplus paint. This may have to be done several times over a period of several days to properly fill in the engraving in an even manner.

If the metal parts are rusty or corroded, take a smooth file and emery cloth and gently remove the scale. It is then ready for chrome plating. The few dollars it will cost will be well spent.

I have done this on several sets with very good results and feel it was well worth the effort.

ATWATER KENT

Helpful Hint for A-K buffs: Part No. 4333 (A-K listing in last OTB) is Model 5 which contains a tuner and metal container with 2 stages RF, det. and 2 AF...proving you can find one. (Frank Atlee, K7FI)

Flea Market

Every now and then someone asks, "Do they REALLY pay those crazy prices for old radio sets?" I've yet to hear of anyone admitting paying a ridiculous price for anything. Sure, someone with a few extra bucks will pay the long price now and then -- but most amateurs and collectors know the market and play it cool. When you hear of an old TRF job for $500 -- you can bet your bottom dollar the dealer is just sitting and waiting for the one sucker in a million and he would be the most surprised fellow in the world if someone REALLY paid the price!

RADIO III -- we seemed to have missed this one -- but if you're interested in tech info on this popular receiver, suggest you go to your local RADIO SHACK store and try and obtain a back copy of their publication called LEISURE ELECTRONICS, Nov./Dec. 1972 issue. (George Bostedtcher)

HELP -- anyone have a practical solution on how to fill in drilled holes on a bakelite panel and make it look half way decent? Basil Abbott and others have asked the question. Any ideas?

CONFUSED? -- members may be confused on WW1 equipment numbers -- particularly after reading Navy Book "History of Communication" published a few years ago (page 576). Bob Palmer, W7RD, has helped straighten out some of the confusion and an explanation will be printed in a future OTB.

Source of BUS BAR wire (mentioned in OTB earlier this year) from Cramer Electronics, Inc. is nil. Seems this company no longer carries Eimbeck products. Suggest members try another large wholesale supplier.
NEWS IN BRIEF

Marconi

Ted Hamah (K3CL) found a note in the New York Times (June) where a missing persons firm in New York City was helping RCA locate 4000 former Marconi Wireless stockholders. We assume it is original American Marconi "paper".... Who has the full story?

CONGRATULATIONS

to Stu Davis, W2ZIH for an outstanding article in the SUNDAY RECORD titled: "The Pioneer Telegraphers". The reporter (and photographer) visited the National Telegraph Museum (Union, N.J.) and came back with an illustrated story worthy of any national publication.

They caught the flavor of old time telegraphy and told about Alfred Vail, the Morse Telegraph Club, the local "wire", E.J. Quinnab, Paul Godley and of course, Curator/Historian Davis. Top copy... (Walt Mullaney, W2BGR)

NEWS RELEASES

Round Hill, former estate of the late Col. Edward H. R. Green and a Jesuit retreat house for the past seven years, is up for sale.

Thomas M. Horan, agent for Meredith and Drew of Boston, said that the 240-acre estate bordering Smith Neck Road, South Dartmouth, had been put up for sale by the Society of Jesus. He denied reports, however, that the Jesuits were asking $2.3 million.

The estate's four-story mansion, an area landmark, was built in 1921 for an estimated $1.5 million. The historic property was purchased in 1964 from Massachusetts Institute of Technology for about $420,000.

The above copy was received from Alan Douglas and tells about Col. Green's fabulous ROUND HILL estate -- site of one of the first broadcast stations in New England. What was final disposition? Who bought it? (Wanna read a good book? Read "The Day They Shook the Plum Tree")

DOTS and DASHES

"DOT and DASHES", official publication for the Morse Telegraph Club is great! Vol. 1, No. 1 proved the club is back in full swing again with several illustrated pages of informal news and historical items. You need not be a Morse Telegrapher to join -- holders of any type of license with code requirements qualify. This course includes radio commercial and amateur licensees. There are several Chapters throughout the country. Write for an application and nearest Chapter:

Stu Davis, 1149 Weber St., Union, New Jersey 07083

NEWS BIT IN BROADCAST FIELD

Pioneer broadcast station WBOY, Charlotte, North Carolina, is in the process of building a small museum of early broadcast material -- both transmitting and receiving. As a start, they would like to borrow equipment. All items will be on contract and insured. Can you help? Write: Lornie McGlohan, Station WBOY

One Julian Price Place

Charlotte, North Carolina 28208

ATWATER-KENT

A new company calling themselves the Atwater Kent Radio Corp. is now in operation selling a line of stereo consoles and speaker systems. We doubt very much there is any connection between the current organization and the one that went out of business in the '30s.

I suppose any day now we'll be seeing "ads" for DeForest cassette tape recorders, Pessenien "Walkie-talkies" and Marconi electronic speed keys... there is nothing like a good name to sell a product.

Collins Owns 57% Of Unit in Japan

DALLAS -- Collins Radio owns 57 per cent of a manufacturing and marketing subsidiary formed in Japan. Collins Radio Co. of Japan Ltd. was formed with Kyokuto Boeki Kaisha Ltd. (Far Eastern Mercantile Co.) of Japan.

Initial plans call for production of communication products for maritime and amateur use.

In Tokyo, a Kyokuto spokesman said products of the new Collins subsidiary will be sold on the domestic market and exported to the U.S.
FALL MEET
SATURDAY, OCTOBER 13, 1973

SWAP SESSION
Opportunity to leisurely swap old receivers, magazines and other early items...

THE NEW ENGLAND MUSEUM OF WIRELESS AND STEAM, INC.

LUNCHEON
12 NOON

Short talks of historical interest...
Restoring old equipment:
"Show and tell"

OLD TIME CONTEST
CLASS I
Best regenerative receiver (any type)

CLASS II
Most unusual radio or electrical measuring device.

SANTA BARBARA ANTIQUE RADIO COLLECTORS CLUB
Reports much activity in Southern California with several new members and occasional get-togethers. Fall was the group's annual display at a large shopping center where members picked up a few "goodies".

An extremely sharp photograph was received from Claude, W6TTZ, but unfortunately, it was in color and AWA printer is reluctant to reprint such pictures. The same group also displays at A.R.R.L. Convocations.

The club and others have indicated they would like a regional meet in California. It was discussed at the last A.W.A. Board Meeting. Write President Breulsford, K2WW, your thoughts suggestions.

The Foothill Museum would be an excellent site for such an event...

HORN BROOK — John Porter, owner of the Radio Museum in Hornbrook, suffered a $12,000 to $15,000 loss when his 35-foot radio exhibition trailer melted to the ground Thursday afternoon on Highway A12 near Highway 97 after an auto mishap.

Porter, who used the trailer to display 1905 to 1929 DeForest, Edison and Marconi radio equipment, lost nearly 100 radios, saving 10 before fire and smoke prevented him from rescuing any more.

A Hornbrook mechanic, Richard Ellington, who had repaired the radio vehicle, was checking the performance of the trailer and van operated by Porter. Ellington, driving a van, attempted to pass the van on A12 but rearended it, and started his car and the trailer on fire at 4 p.m.

The car was a total loss. Porter pulled the van away from the trailer just as the flames reached the front of the trailer. He and Ellington each suffered minor injuries.

Porter said he would rebuild the trailer and put another exhibit on the road with radios from his Hornbrook museum. He said it would be very hard to replace those radios lost.

The above newspaper copy (Hornbrook, Calif.) tells of tragic circumstances for AWA member John Porter. The event took place earlier in the year -- we wish him luck in rebuilding the collection since many of his sets were almost irreplaceable.
OLD TYME HAM ADS

OLD TYME ADS are FREE to members who are interested in collecting and restoring historical equipment as an amateur. They are not to be abused.

RULES FOR ADS:
1. Material must be over 25 years old.
2. Ad MUST be written on separate sheet of paper -- not part of letter. For acknowledgement -- send S.A.S.E.
3. Give full address, zip number and call letters (if any).
4. AWA will not print repetitious ads or ones indicating regular sale for profit.
5. The Association is NOT responsible for any transaction.
6. AWA retains the right to reduce size of ad.
7. All ads must be received 5 weeks prior to mailing date.
8. Mail to Antique Wireless Assn. Main Street, Holcomb, N.Y. 14469

WANTED: Western Electric 594-A Loud-sounding Telephone and 3L-A horn. Also other W.E. sound equipment. Will buy or have 16 inch transcriptions and W.E. tubes to trade. John Schretzmaier, 140 Southern Blvd., East Patchogue, N.Y. 11772

FOR SALE: Beautifully restored and refinished to original condition one Majestic Model 130-A console radio. Works perfectly. Transportation can be arranged. What am I offered? Ernst Willenweber, 3700 North Fairfield Lane, Woodbridge, Virginia 22191

WANTED: Double button microphone such as W.E. 300A. Also need info on Double-day Broadcaster receiver built by Smith & Burgraff and described in Radio Broadcast magazine in mid 20's. Write: WCE, 8604-55th Rl., Elmhurst, N.Y. 11373

WANTED: Balanced Amplifier for Radiola III and Grebe Synchrophase in good condition. George Boettcher, Royal Tows Apt. 410, 355 Pleasantville Ave., Hackensack, New Jersey 07601

NEED: old issues of General Radio Experiment or General Radio catalogs. Want to sell 25 years of GSEs. WJAM, 9406 Evans St., Philadelphia, Pa. 19115

TRADE: New coils (antenna) for Pilot Super-Wasp covering 14 to 500 meters. Want tuning dial for HA/DA, parts for TP-501A crystal detector, AK Stage 1, HP xfrmr Type IR, Cap or cover for BC-14A Century buzzer, rheostat & knob for Radak RZ and sockets for R-4. Write: Joseph Demme, 494 Hirsch Ave., Calumet City, Ill. 60409

FOR SALE: 1 lithograph reprints of old time wireless catalogs: Remler 8 pages @ $4, F.D. Pitts 20 pgs. $1.50, Young & McCombs, 46 pgs. $1.75 Both catalogs for $3 ppd. 1st class. Robert Middleton, Box 1061, Santa Cruz, Ca. 95060

WANTED: Radio set for SCR-575 VHF Direction Finding station I'm building. Need Sw. panel PN-6, Fuse panel PN-15, Box JB-45, Cont. panel PN-25, Fuse panel PN-5, Ant. equip. BC-153 and Tech. manual BC-153. (equip, is Bendix and green) John Elwood, W7GA/6, Box 1243, Lancaster, Calif. 93534

SOLD or TRADE: Radiola 17 with spkr., AK-30 without spkr., AK-40 with speaker. Need wood en cabinets (table models only) for: Pilot Super-Wasp Mod. K-115, 1969 Stromberg-Carlson Mod. 641 and Eveready Mod. 50-54. Write Aaron Solomon, VE6C, 8 Crichton Park Road, Dartmouth, Nova Scotia, Canada

WANTED: Coil for Grebe R17, large tuning knob & rheostat for Grebe CR-9, knob & coil & crystal detector for Radiola V, Bob Lane, 2301 Inde. Ave., Kansas City, Missouri 64124

WANTED: to buy: Radio or wireless collection -- large or small. Will pick up. Jerry Vanicek, 3313 So. Lowe Avenue, Chicago, Ill. 60616

LOCKING: for Ware neutralized B-0 set with 3 stages of HP and built-in antenna. Frank Shannon, K4GT, 140 Bosphorous Ave. Tampa, Florida 33606

FOR SALE or trade: for Western Electric 4-B, C, D or E superhet -- one 18" W.E. cone speaker (mint) and one Pilot 3" TV receiver (works fine). Ruddy Schrock, 402 Lincoln St., Somersett, Penna. 15501

WANTED to buy -- collection of battery radios, horn speakers or phonographs. State as much information as possible. Wilfred Wilkes, Box 43, Brisbin, Penna. 16620
TRADE: CR-3, AK-30 in Pooley cabinet, early QSTs and CQ's for old magazines, early QSTs or what have you. Write: Mike Horvat, WA7KIZ, Tangent, Oregon, 97399

WANTED: A-K instruction Book Vol. 2. Have Radiola III, AK compact, AK-32 to swap for sets I don't have. Write: Alvin Heckard, RD #1, Box 88, Lewiston, Penna., 17044

FOR SALE: 38 page Authorized Atwater-Kent Factory Service Manual copies covering from Mod. 10 through Mod. 50. $3.50 postpaid. Del Barrett, 1517 Pacific Drive, Ft. Wayne, Ind. 46819

WANTED: Pre-WWII receivers made by General Electric Co. Also need a horn speaker. John Webb, WD4CW, 4919 Schuyler Drive, Carmichael, Calif. 95608

STILL LOOKING for a Pilot Centraline Capsicagrad 23 plate var. cond. The cond. end plate is 3 5/8" long and 1 13/16" top to bottom, end plates are 1 3/4" apart. Ted Woolner, W1ABF, 30 Cedar Rd., Shrewsbury, Mass. 01545


NEED: power supply in working condition for A-K Model 37. Would also like to hear from anyone who has rebuilt power supply for AK Mod. 37, 40, 44, want list of radio speaker tubes for sale. George Brehm, 730 Leibacher Ave., Norwalk, Calif. 90650

WANTED: Early and historic vacuum tubes. Will buy or swap. Have tubes, parts, books, etc. Sterling Jensen, 16300 Shanhart Dr., Granada Hills, Calif. 91344

SWAP: large collection of tubes; need Kenotron rectors, VT-1 W.E., Sodion S or D series, Mooneys, etc. All letters answered. Ben Freiland, W3QJW, 127 Spring Grove Rd., Pittsburgh, Penna., 15203

FOR SALE: Several 1920 receivers including Clapp-Rastham HR, National SW-3, Splitdorf Abbey, W.E. 7-A amp. and others. Send S.A.S.E. for lists. Sam Partin, 205 Woodbine Ave., Lee's Summit, Mo. 64063

WANTED: A crystal detector which will work and be installed on Radiola V. Pay cash or Radiola 20 cabinet for trade. Dan Caidos, W1LPU, 342 West River Road, Orange, Conn. 06477

HELP: have gutted Radiola Grand with good cabinet, horns and various parts needed. Also need good parts for Capehart (Farnsworth) 16E "turn-over" record changer or unit. Need AK service Manual. John Field, 1700 Mission St., Santa Cruz, Calif. 95060

Warning: Word has come in again that a non-AWA member of questionable character has been answering Old Tyme Ads. Members are warned not to deal with strangers. If you're not sure he's a member and have not seen his name in the OTB within the past year (he was a member), write to either the Secretary or Treasurer to verify current membership. We can't give his name for obvious reasons plus the fact we don't know which one he is currently using! He has used at least three different names all from the same address! His activities may be investigated by U.S. Postal Authorities on Mail Fraud Charges.
OLD TYME HAM ADS

SELL battery model National SW-3 with 2 prs. of coils. Also have SCR-65 spk. transmitter. Make offer. Badly need a Century buzzer for BC-114A. Lew Elias, WHDBT, 3919 Pointdexter, N.C. 27106

WANT: to restore Kennedy XV-tuning dials, sel. dial and tube control dial. Also need tube rejuvenator, Radiola III-A and Radiola speaker, adapters for WD-11 to 1993's, have RCA UX-200 and UX-210 in original cartons to swap for WD-11. Donald Barnes, 1342 Cabrillo St., San Francisco, Calif. 94118

WANT: Tuning dial for AK-10. Write: Jane Poulter, K7WP, 6344 Garwood Ave., Las Vegas, Nevada 89110

HELP: need cabinet for Federal Portable Type 102 or measurements and picture so I may make one. All letters answered. Gay Ewing, Box 308, Breesport, N.Y. 14816

NEED cabinets for 30 x 7" and 24 x 7" panels. Have early octal tubes for sale cheap or trade. Geo. Hausske, 1162 E. Indiana St., Wheaton, Ill. 60187

FREE for shipping: 1928 Kolster dynamic loudspeaker. Also old books for sale or swap. Warren Green, W7JY, 7202 N. Mercer Way, Mercer Island, Washington 98040


NEED for research work copies of U.S. Commercial Call Books for 1910-1911-1912 listing who controls station, not just Govt. or Co. as shown in "Wireless Tel. Stations of the World". I have copies 1910 & 1912 Stations of the World for trade. T. L. Mayes, W6AX, 21120 Sullivan Way, Saratoga, Calif. 95070

FOR SALE: parts for Atwater-Kent models 20 and 30, dials, coils rheostats, condenser blocks, sockets. Also Federal, 27 rheostats and Crosley Type D. Arthur Barnish, 4042 Herman, S.W. Grand Rapids, Michigan 49509

FOR SALE: Various old components, tubes and assorted gear. BASE for list. Want: W.S.A. Co. Baton Circuit driver Type Triode-dimensions and schematic as wish to build replica. Selwyn Blake, 126 Summer St., Andover, Mass. 01810

TRADE or SELL: Scott Model XII 12 tube set with power supply, amp., 5W antenna tuner & speaker. Fried-Blesmann NR-5, Tuner RA of RADA set. All excellent. Need cabinet for DeForest D-17. Sy Hernandez, River Rd., RFD #1, Essex, Conn. 06426 (Tel. 203-767-1410)

SEEK Kellogg wavemaster, Crosley XJ, Magnavox TRF-5 or TRF-50. Have sets to trade. Art Harrison, 1021 Falcon Dr., Columbia, Mo. 65201

--- NOTICE ---

The OLD TIMERS BULLETIN is published approximately four times a year at Holcomb, N.Y. by and for members of the Antique Wireless Association, Inc., a non-profit historical society chartered by the State of New York.

This publication does not accept paid advertising nor is it liable in any way in any buying or selling transaction entered into by its readers as a result of its contents. The Old Timers Bulletin is available only as part of the Antique Wireless Association membership fee and its issuance is subject to change as to frequency, content and size from time to time.
Q.-1 Can you tell me if it is true that early RCA and Cunningham tubes were made at the same plant, with the only difference being the label and box?

A.-1 It is true. The story of how it came about is too long to relate here. See pp. 56 and 92 of January 1945 issue of Radio News for details.

Q.-2 Did the Welsh and Electrad diodes of the 1920s really operate as triodes when one added the external element?

A.-2 It is extremely unlikely that the Electrad Diode could be operated as a triode by using an external control element. The anode consisted of a close-wound spiral of wire which completely surrounded and shielded the filament. Hence, any effect on the electron flow between filament and anode, caused by an external element, must have been negligible.

There were two types of "Welsh" tubes. One was a diode called the "Welsh Dollar Detector". The second, designated as "Welsh Peanut Tube WT-501" was first advertised for use as a detector only in February 1923, on page 1570 of RADIO NEWS. It had a constriction in the cylindrical bulb, into which an insulated wire was wound, on the outside of the bulb. This wire was alleged to act as a control element but if it did the gain must have been microscopic. This tube disappeared from the market about December 1923.

Q.-3 I have several "French" tubes made around World War I or shortly thereafter. One has a shiny plated (?) base and the others have dull brass-color bases. Construction-wise they appear about the same. Why should the bases be different?

A.-3 The "French" tube, developed by the "Telegraphie Militaire" of the French Army during World War I, was made in the beginning by Societe Grammont and was known as the "TM" type tube. The output of one factory being insufficient for military needs the "Compagnie des Lampes" also became a manufacturer. During the War the base shells were made of copper. After the War, when broadcasting increased civilian demand, two other companies, the "Societe Independente De T.S.F." and "La Radiotechnique", got into the act. These companies all made the "TM" tube, and were competing with each other for the business of the broadcast listener. The brass base shell was cheaper than the copper base shell, and was used by some. The nickel-plated base shell was probably intended to catch the eye of the potential customer. In the early French broadcast receivers the tubes were mounted on the top of the set, with the bases in plain sight. And maybe brass bases went well with other brass fittings, while nickel-plated bases looked better on sets with nickel-plated fittings.
NEW 1973 VINTAGE RADIO

We've talked with several who have seen Morgan McMahon's new edition of VINTAGE RADIO (originally Greenwood). It was generally agreed it was not the final answer for all collectors--there never will be such a book!

The lay collector with limited knowledge (and interest) would not want a highly technical (and over priced) manual. Neither would the engineer expect the complete history of the radio industry in one volume...

VINTAGE RADIO is a compromise--and a good one. The author briefly covers the history of early wireless (transmitting and receiving) and moves into the glamour age of radio--the 1920's and cuts off at 1929.

Representative amateur, commercial and broadcast equipment is briefly described with hundreds of pictures. Emphasis is on broadcast which in turn makes the book THE reference manual for the collector. One frequently hears the comment "The set I am talking about is on page 212 of VINTAGE RADIO", etc.

There are a few questionable dates (a set is designed and engineered on one date and accepted by the public on another) but in general, it is a vast improvement over the original.

In addition, much historical data has been added making good reading. Obviously, the author could not illustrate every set and tube made but he did come up with an excellent "Directory of Radio Broadcast Receivers, 1921-1930" in the rear of the book which lists thousands of receivers in alphabetical order and the year they were manufactured. This list in itself is worth the price of the book.

We understand the author is planning a pictorial history of amateur radio--a difficult project but may be a rewarding one.

McMahon's VINTAGE RADIO, Box 2045, Palos Verdes Peninsula, Calif., 90274
Vintage Radio, handbook $4.95
Vintage Radio, hard cover 6.95
McMahon's 1921-32 Radio Guide 3.95
California residents add 5% State Sales Tax.
ASSOCIATION NEWS

FROM HEADQUARTERS

NOTICE

50th Anniversary QSO Now In Order

A.W.A. COMMEMORATES 50TH ANNIVERSARY FIRST TRANS-ATLANTIC AMATEUR QSO'S

On Tuesday, November 27, 1973, the A.W.A. will hold a QSO party for all members. Suggested frequencies of operation are:

1835 kc, CW or fone
3584 kc, CW
5902 kc, fone
7040 kc, CW
14024 kc, CW

Suggested hours of operation:
noon to midnight E.S.T.

This is not a contest but be as active as you can. In order to receive recognition, send log to:
W2BGN, 42 Oakland Ave, South,
New Hartford, N.Y. 13413

NSS NOW NAM

As a result of a Navy-wide call sign change, "Navy Radio Washington" NSS at Annapolis is now NAM. This is regrettable since it has been a familiar call sign for over a half century. Was it necessary? (Tx to K3CL)

Change In Address?

Mail information to the Treasurer who handles current mailing list.
(NOT the Secretary)
L. A. CUNDALL, W2QY
69 BOULEVARD PKY
ROCHESTER, N.Y. 14612

A.W.A. BADGES

The large orange badges worn by members at radio meets are again available. The badge has a large plastic window and insert which the wearer writes his name and other identification. A masthead and old radio call letters surround the opening.

Send $1 to:
Lincoln Cundall
69 Boulevard Parkway
Rochester, N.Y. 14612

SMASHING SUCCESS!

We hate to keep using the same headline but there is no other way to describe the Brexport Summer Meet. A local gathering with usually 30 to 40 attendance blossomed into 52 for the dinner with an additional 20 showing up in the afternoon. A fair amount of swapping took place, a good look at lotsa new gear plus unexcelled entertainment (piano and organ) made it an enjoyable day...a warm thanks to Lauren and Joyce Peckham.

ANTIQUE WIRELESS ASSOCIATION MUSEUM

HOLCOMB, NEW YORK 14469

Member:
AMERICAN ASSOCIATION OF MUSEUMS
Affiliate:
AMERICAN RADIO RELAY LEAGUE

The A.W.A. provides facilities for member’s equipment and a photographic workshop for the amateur historian.

Open for special events or by advance appointment between May 1 and October 31. No charge.

TELEPHONE: 315-657-7489 or 716-663-0856
Club Radio Station: Amateur W2AN
The 4:00 P.M. AWA NET has gone quiet for the summer except for the regulars (well not every day -- on rainy days things pick up) like W2ARX, W2APE, W2QY and W2IK also W2BN.

We have been wondering what has become of W1DMO. As a result of his Old Tyme Ham Ad and announcements made at the Canandaigua Spring Meet, he has sold all his collection of old time receivers. Did he sell out his modern ham equipment too?

Ralph, W2IK, visited the old homestead in New Hartford and was peering in the dark corners of the attic when he found his original transmitter and receiver! The receiver was battery operated since the farm had no power then. Ralph describes the xmt as push-pull self excited using a pair of 71's and the receiver as det. es 1 step audio with 199's. Vermin had de-insulated some of the wiring but restoration is well underway and if tubes can be found it will be on the air for the next OT CW contest.

Yardley Beers, W2JF, comes up with a good idea. He writes, "This year, specifically November 27th, is the 50th Anniversary of the first transatlantic QSO's. Why doesn't AWA commemorate the event with a QSO party?" Will do and we will look for a European AWA member to work! See announcement elsewhere in QTH for details.

Necessity is the mother -- when you can't operate from the shack, run a coax from the antenna unit to the living room davenport! This is exactly what Gross, W3EKM, did when sciatica prevented him from climbing stairs and sitting at the operating position. It was easier to recline next to a card table holding the xmt and operate. Can you imagine swinging a sideswiper while lying down? (It is difficult to do normally!) Gross never missed a dot...

"Woody" Cook, W9GJS, is rebuilding his old 1/2 KW spark set and restoring his first crystal set. Let's get him on 80 CW with an OT xmt!

Cliff Daykin, W2APE, is one of the fellows who purchased some of Tate's (W8FX) old gear. Cliff had corresponded with Tate for several years before his death concerning early spark equipment. Much of this gear is now at W2APE including rotary spark gaps and spark condensers -- in spite of an unfortunate shipping mishap.

Art Brittingham visited AWA Museum this past summer and examined W2AN's 1929 xmt. Result: he returned to Florida and is now working on an early breadboard set for OT operation.

**TRANSMITTING CIRCUIT**

[Diagram of a transmitting circuit]

(a).—Filament at (-) plate

(b).—Both L, and filament grounded potential.

**HARTLEY ARRANGEMENT**

Old Sol has upset the AWA Sunday SSB Net no end. It was planned to operate on 7227 kc. from April 1 to October 1. Supposedly, condix would be better from the standpoint of QRM and signal level. However, this was true only once or twice and the Net had to operate back on 3902. Officially, the 12 Noon Sunday Day Net will again be scheduled for 3902 for the winter months beginning October 1st.

All the lawn mowers and gardeners are up to their usual antics of trimming and fertilizing and weeding so the grass will be green and the tomatoes red and the asparagus tall.W2BN planted an above ground swimming pool, all aluminum, and wired it into the ground radial system...a better signal? He is also now using a UN-203-A in the final to conserve the old WE 211-D...
JOIN THE FUN!

Here's a 2 tube set recently built by Ted Woolner, WAlABF from junk box parts. It uses a UV-200A detector plus 201A audio or a pair of CH4's with adapters. Ted has it in his ham radio desk (Note Gonset Communicator in background) and every now and then he turns it on. So far he has heard BC stations in Chicago, Tennessee with WKSL, Salt Lake City the best DX. The regeneration is controlled by a thin shaft going through the ½" tuning condenser shaft which actuates the tickler coil (black disc in center of coil).

Electrical connections of simple receiving set, employing single-circuit tuner and crystal detector.

Two-Circuit Tickler Regenerative Receiver
Agree to Build Largest Atlantic Cable

Officials of 16 European countries and the United States recently signed an agreement providing for the completion in 1976 of the largest capacity undersea cable system ever put into service.

The $145-million system will have a capacity of 4000 voice-grade circuits. It will extend from Green Hill, R.I., to St. Hilaire de Riez, France.

Taking part in the signing at the French Ministry of Telecommunications, here, were officials of American Telephone & Telegraph, ITT World Communications, RCA Global Communications, and Western Union International.

The European countries involved are Austria, Belgium, Denmark, France, Finland, Germany, Greece, Ireland, Italy, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

AT&T's Long Lines department which will be responsible for construction, said the system is scheduled to be put into service in the first quarter of 1976, the 20th anniversary of the first telephone cable linking the U.S. and Europe.

The transistorized repeaters which amplify communications signals, in the 3600-mile cable system, will be manufactured by AT&T's manufacturing subsidiary, Western Electric.

The new cable service, which was authorized by the Federal Communications Commission, is expected to handle much of the increased telephone and data communications traffic between Europe and the U.S.

50TH ANNIVERSARY

WWV is now 50 years old. Operated by the Bureau of Standards, WWV first went on the air March 6, 1923 in Washington, D.C. It now operates from a 360-acre site near Fort Collins, Colo.

(Rob Cobaugh, W2ENX)

T. R. McLEROY
WORLD'S CHAMPION RADIO TELEGRAPHER

ANTIQUE WIRELESS ASSOCIATION INC.
HOLCOMB, NEW YORK 14469

"An amateur organization devoted to the history of wireless"

OFFICERS

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<td>Charles Brelsford</td>
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<td>Kenneth Gardner</td>
<td>W2BGN</td>
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<td>Bruce Kelley</td>
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<td>Lincoln Gundall</td>
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<td>Harry Lott</td>
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<td>Harold Smith</td>
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<tr>
<td>Attorney</td>
<td>Sherwood Snyder</td>
<td>W2KPF</td>
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<tr>
<td>Photographer</td>
<td>Al Crum</td>
<td>W2DWH</td>
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ADVISORY BOARD

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<td>1</td>
<td>Bob Merriam</td>
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<td>Joe Pavek</td>
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HONORARY MEMBERS

Marion Armstrong | Clarence Tusa
Lloyd Espenschied | Geo. Grammer
Paul Gooley | Harry Houck

HOUCK AWARD: Bob Morris (Chairman)
Bill Gould | Thorn Mayes

AMATEUR STATION: 2EAN

News Journal: OLD TIMERS BULLETIN
Editor: Bruce Kelley
Make-up Editor: Larry Triggs
Asst. Editors: Ken Gardner | Lauren Peckham
Printer: Don Ray

The BULLETIN is published quarterly and mailed in March, June, September and December. Send all news items to Secretary: MAIN STREET
HOLCOMB, NEW YORK 14469

DUES AND ADDRESS CHANGES:
Lincoln Gundall
69 Boulevard Parkway
Rochester, N.Y. 14612
FEDERAL JUNIOR (crystal set) and Two Stage Audio Amplifier

Set collecting interest ranges from small 1 tube sets to large floor models. For obvious reasons, interest is greater in the smaller models; they have greater historic value and take less space. A small Clapp-Eastham one tube set usually sells for much more than a console of the 30's! Pictured are two units that command great respect -- the FEDERAL JR, crystal set and the audio amplifier recently acquired by Dick Hansley. The two step amplifier is particularly rare since few were manufactured.

RADIO OPERATORS ON THE GREAT LAKES

Our membership includes a small group of commercial operators who at one time were employed on the Great Lakes either aboard ship or land stations. Three pioneers of the 1906 - 1910 era are George Surney, former Chief Operator at the Canadian Marconi station, Kingston; Charles Barker, ship and shore operator in the Buffalo area and Ken Richardson who was at the de Forest station, Erie, Penna. Among the late comers is A.W.A. President Charles Breisford, K2WW, who was "sparks" on the Great Lakes in the late 20's.

The newest A.W.A. member to join the group is George Brown, W5YET. He got in the game around 1921 as 8CUD with a 3/4 KW rotary spk set. He became a commercial operator soon after on the steamer CHARLES JENKINS with the call WFP using a ½ KW, qenich gap 500 cycle set. This followed numerous assignments on Mississippi River boats and vessels working out of New York to South America and Africa. George retired as engineer at AM/TV Station W5PD and now runs a bookstore as a hobby...Welcome aboard OM.....

CLASSIC RECEIVER

FB-7

Another excellent article on a classic communication receiver appeared in the July '73 issue of CQ magazine by Bill Orr, W6SAI. This time Bill covers the famous National FB-7 which he considers the first of the real commercial single signal superhetersonics. As background, he tells of Jim Lamb's (ex-1AL) article in August, 1932 QST and then of development work at National Co. by James Millon which resulted in the FB-7. The article is well illustrated and includes a schematic of the FB-7A -- the model with the crystal filter.

Orr tells of a few tricks on how to improve the set for those who wish to use one in their "No Year Old Station".

Unquestionably, W6SAI is the leader in rejuvenating interest in Classic Communication Receivers. His article on the SW-3 (July '71 "Cq") started the ball rolling. Watch the price go up now on FB-7's!
AERIOTRON VACUUM TUBES
(Westinghouse Products)

Aeriotron Amplifier Tube Model WR-21-A, for Use with Aeriola Grand Receiver

This is a specially designed and carefully selected tube for use in the amplifying circuits of the Aeriola Grand and may be placed in any of the three front receptacles from left to right.

The filament current for this tube is approximately 8/5 of an ampere and the drop across the filament is about 4 volts. A six volt storage battery with a rheostat or ballast tube control will, therefore, furnish satisfactory power for heating the filament to its normal operating temperature.

The plate impedance of this tube is from 60,000 to 80,000 ohms, making it adaptable to resistance coupled amplification.

WR-21-A Amplifier Tube for Aeriola Grand Receiver .......... $7.50
Dimensions: 4⅛ in. x 1½ in.
Weights: Net, 4 oz.; Shipping, 1 lb.

Aeriotron Detector Tube, Model WR-21-D, for Use with Aeriola Grand Receiver

This tube is designed especially for use with the Aeriola Grand Receiver and when so used gives excellent receiving results. It is provided with a special base which prevents its being used in equipment with which it will not properly function. Aeriotron WR-21-D has a green tip marking and is designed for use as the detector tube in Aeriola Grandians, and should be placed in the right-hand front receptacle.

The filament current for this tube is approximately 8/5 of an ampere and the drop across the filament is about 4 volts. A six volt storage battery with a rheostat or ballast tube control will, therefore, furnish satisfactory power for heating the filament.

Aeriotron Detector Renewal Tube, Model WR-21-D for Aeriola Grand Receiver .......... $7.50
Dimensions: 4⅛ in. x 1½ in.
Weights: Net, 4 oz.; Shipping, 1 lb.

Aeriotron Ballast Renewal Tube Model WB-800 for Aeriola Grand Filament Circuits

This vacuum tube has been especially designed for use with the Aeriola Grand Receiver. It functions as a control element in the filament circuit of the detector and amplifier tubes. By the use of these control tubes, accurate adjustment of the filament current is automatically taken care of and filament rheostats are not required.

Aeriotron Ballast Renewal Tube, Model WB-800 for Aeriola Grand Filament Circuit, .......... $3.50
Dimensions: 4⅛ in. x 1½ in.
Weights: Net, 4 oz.; Shipping, 1 lb.

Aeriotron Detector Tube Model WD-11, For Use with Aeriola Sr. Receivers

Aeriotron Detector tube, Model WD-11, is designed for use with the Aeriola Sr. Receiver. It is provided with a special base to preclude the possibility of its being placed in a circuit other than that for which it has been designed.

The filament current consumed by this tube is .25 of an ampere which may be supplied from a single 1.5 volt standard dry cell. However, it is advisable to connect the tube directly across the terminals of such a battery, and for this reason a suitable rheostat for controlling the filament temperature is provided with the Aeriola Sr.

The WD-11 Aeriotron tube operates quite satisfactorily as a detector when 22.5 volts are applied to its plate.

Aeriotron Detector Renewal Tube, Model WD-11 for Aeriola Sr. Receiver .......... $8.00
Dimensions: 4½ in. x 1⅛ in. Weights: Net, 4 oz.; Shipping, 1 lb.
Caution: The Aeriotron WD-11 has a special coated filament and must not be burned hotter than a DULL RED.

The WR-21-A, WR-21-D and WB-800 tubes made by Westinghouse are now in the very rare category. Westinghouse made few tubes in the early days --- the field being taken over almost entirely by G.E. who manufactured for RCA and Cunningham (with the exception of W.E. for commercial use). Since these tubes were designed for only one set, production was small and was soon phased out. A tube collector is lucky if he can find even one of these gems.
**Dr. Elman Myers, radio pioneer**

Elman Myers died recently in Wayne, New Jersey at the age of 62 years. Historians associate Myers with the tube he developed and sold under his name in the early 20's (Myers Audion). Dr. Myers was guest speaker at the 1969 A.W.A. Conference where he told of his experiences while working with de Forest, Poulsen and other early companies. Myers was the holder of numerous patents the most recent being a wide vision non-glare mirror.

---

**AERIOLA SR.**

Basic circuit for Aeriola Sr. Coils A, B, C & D are all wound on the same coil form. Coils E & F are wound on smaller forms and rotate within the other. The Aeriola Sr. is one of the first commercial tube receivers made for broadcast reception and is a MUST for every serious collector.

---

Complete Aeriola Sr. Broadcasting Receiver, Model RF, 190-500 Meters, with One Acriotron WD-11-D Vacuum Tube, One Filament Dry Cell, One Plate Dry Battery, Head Telephone Receivers, Antenna Equipment and Full Instructions $75.90

Aeriola Sr. Broadcasting Receiver, Model RF, As Above, Less Batteries and Antenna Equipment $65.00

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**REMARK**

Be on the air Nov. 27 for 50th Anniversary of Trans-Atlantic contacts... CW/AM/SSB... see announcement elsewhere in Bulletin.
Broadcasting

Early station list 11-1-15
Early programs 11-1-16
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Wave Length—Radio waves in their passage through the ether, travel in undulating waves similar to the waves at a seashore. When the wind is blowing hard and steady the distance between each wave crest is comparatively long, while if the wind is blowing more mildly and in shorter spurts, the distance between wave crests is accordingly shorter and we have short waves. In radio substitute the wind for the transmitter and you have the same action so to speak. Wave length is therefore, closely allied with frequency, i.e., long wave lengths have low natural frequencies while short wave lengths have greater natural frequencies. In general, short wave lengths are used for short distance low power work, while long wave lengths are employed for long distance high power work, although there is no relation between wave-length and transmitting range.

Here's A Receiving Set That Is Guaranteed

Single-Slide Tuning Coil With Crystal Detector