ANTIQUE WIRELESS ASSOCIATION, INC.  Founded 1962. Charters as a non-profit corporation by the State of New York

HOLCOMB, NEW YORK  14469

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PHOTOGRAPHER

Al Crum  W5BWK

AMATEUR STATION:  W2AN

NEWS and general CORRESPONDENCE, write Secretary: BRUCE KELLEY
(S.A.S.E. for reply) MAIN ST., HOLCOMB, N.Y. 14469
Membership DUES and ADDRESS CHANGE, write Treasurer: LINCOLN GUNDALL
59 BOULEVARD PARKWAY, ROCHESTER, N.Y. 14612

AWA NETS

PHONE [SSB]
Sunday ---- 12 noon 3903 Kc.
Tuesday --  8 P.M. 3866 Kc.
Monday -- Wednesday -- Friday
9:30 A.M.  3866 Kc.
Tuesday -- 2 to 3 P.M.
14270 Kc.

CW [Code]
3584 Kc.
First Wednesday of each month
Daily --- 4 P.M.
Note: Frequencies are subject to plus/minus 3 kc. to avoid
QRM and are E.S.T. (or E.D.S.T.)

DUES: PAYABLE TO TREASURER
Lincoln Gundall
69 Boulevard Parkway
Rochester, N.Y. 14612

FIRST CLASS MAILING: 1 year- $6.50
(Special Handling) 2 years-$12.00
THIRD CLASS MAILING: 1 year- $5.00

COMING EVENTS

ANTIQUE WIRELESS ASSOCIATION

A.R.R.L. NATIONAL CONVENTION
Toronto, Ontario, Canada
June 3-4 [Program and Exhibit]

NATIONAL HISTORICAL RADIO CON-
ERENCE - Ford Science Museum,
Dearborn, Michigan, Oct. 7-8-9

FALL A.W.A. MEET
Date and location to be announced.

ANNUAL BUSINESS MEETING
Sunday, Nov. 6

EARLY YEARS

EARLY YEARS

A.W.A. has a new slide/tape show telling of the early days of amateur radio with emphasis on the founding of the ARRL. Mr. Clarence Tuska, co-founder of the League, narrates much of the show which includes his experiences in WW1 Signal Corps. The premiere showing will be at the National A.R.R.L. Convention, Toronto, Ontario, June.
A.W.A. CELEBRATES 25th ANNIVERSARY

The World's Oldest and Largest Organization Dedicated to Preserving and Documenting the History of Radio.

What's Coming Next!
in the "Old Timer's Bulletin"
"OLD CORTLAND STREET"
"HISTORY OF BARKER & WILLIAMSON"
"HOW TO MAKE A TESLA COIL"
"COLLECTING HEADSETS"
"HISTORY OF DAY-FAN RADIO CO."
"THE WHITE VALVE"
"HUGO GERNBACK STORY"
"600 METER WATCH"
--- plus much more.

MUSEUM BROCHURE
Several thousand colorful brochures have been printed telling about your AWA Museum. They will be available at the Museum and distributed at local Tourist Information Centers.

NEW S.O.W.P. PRESIDENT
Congratulations to Bill Breniman on his new job as President of the Society of Wireless Pioneers. A most commendable choice.

TYNE'S SAGA
Word has just been received that Tyne's book SAGA OF THE VACUUM TUBE is at the printer where they are 6 months behind in their work. Members who sent in advance purchase slips will be notified when the books goes to press.

TELEVISION HISTORIANS
Recommend you read the excellent series on early TV pioneers (and development) currently being printed in "Antique Radio Topics". Write Jim Fred, Box 42, Rossville, Ind. 46065

SILENT KEYS
JAMES HICKEY, Asheville, N.C.
BILL TRAVERS, Pollock Pines, Cal.
FRANK WINGARD, W9EWH
Rock Island, Ill.
WILLIAM RIDENOUR, W3HI
Corapolis, Pa.
WILLIAM SWAIN, K2MAJ
Scottsville, N.Y.

Franklin F. Wingard, local attorney since 1929, dies at age 72

Mr. Wingard died Saturday at Franciscan Hospital after a stroke.
He was the senior partner of Wingard, Schultz, Sherer and Melais.
He was a charter member of the Rock Island Junior Chamber of Commerce, a charter member of the Rock Island Centennial Bridge Commission and was serving on the board of directors of Black Hawk Federal Savings and Loan Assn.
Mr. Wingard was a 25 year member of the Antique Wireless Assn., donating his collection to the Smithsonian Institute, Washington, D.C., in 1962. He was one of the first commissioners for the Rock Island housing authority and served as the attorney for the authority for 35 years, until 1973.
He was a member of BPO Eks, 900; Western Star Lodge of Masons, Lodge 240, Moline Consistory; the Rock Island Kiwanis Club, and Tobala Temple of the Shrine.
Survivors include his wife.

Frank Wingard was a Member of the A.W.A. Advisory Board and a pioneer radio collector and historian.
COMING UP . . . .
a new publication for the radio historian . . . .

Starting this year, the Association will publish an Annual Journal devoted to historical material not found elsewhere in any publication. The purpose of the Journal is defined as:

"To record and publish the history concerning the early days and development of wireless and radio communication and related fields of activity."

The Journal will average 100 pages and be offered for sale to members, libraries, universities and the general public at slightly above cost.

Larry Triggs has been appointed Chairman, Lou Moreau Editor and Thorn Mayes, Bob Morris and Joe Pavek as Committee Members.

Note of Thanks

to all new members who responded so generously to the recent request for Museum maintenance funds.

A big THANKS !

--AWA Museum Committee

WANT: --short articles on collecting and restoring, news items of historical interest, etc . . . . Write Headquarters.

THE EASY ANSWER

for a club program is the A.W.A.
SLIDE SHOW with TAPE COMMENTARY

Members who need program material for a radio club meeting will find the AWA 40 slide show and 32 minute tape cassette commentary ideal. In fact, it is even a great program for one's personal use.

The slides show all kinds of radio material in the AWA Museum with tape telling about the various pieces of equipment and its history. We might add the tape commentary was made by a professional radio announcer.

The show with tape is yours for only $21 postpaid. Make check out to A.W.A. and mail to:

AL CRAUM
16 COSTAR ST.
ROCHESTER, N.Y. 14608
ASSOCIATION NEWS

PLAN AHEAD

now for the 1977 Conference Old Time Receiver/Equipment Contest, Oct. 8
Here are the various classes recently submitted by Mel Comer, John Drake and Ralph Williams:
1. Crystal receivers
2. TRF receivers
   (must have RF amplifier)
3. Regenerative receivers
4. Superheterodyne receivers
5. Tube type transmitters
6. Spark transmitters
7. Untuned or broadband RF amplifier receivers
8. Reflex receivers
9. Tubes -- from World War I and before (unusual or experimental types.)
10. Unusual and/or interesting wireless equipment-general.

Receivers are open to all who wish to enter.

Membership Application
Our 25th Anniversary issue must have been a success with all the requests for membership. To save you and AWA postage, enclose find an application to give to a friend.

RECEIVER CONTEST

winners at the SOUTHEAST A.W.A. MEET, Orlando, Fla.
Submitted by Dale Donner, K4WR
Judges: Floyd Bennett, Fred Hammond and Dick Smith.

Crystal Sets -- Herman Kramer
Pre-1930 TRF -- Fred Greer
   Charles Rucks
Pre-1930 Regen- Herman Kramer
   Herman Kramer
Pre-1930 Super-
   Herman Kramer
   Herman Kramer

Components -- Herman Kramer
Fred Greer

Loudspeakers -- Fred Greer
Fred Greer

Console AC sets-Herman Kramer
Herman Kramer
Fred Greer

Classic sets-- Kurt Thompson
Richard Cane
Herman Kramer
Pre-1930 ham gear Herman Kramer

Congratulations for a good job!

AWA/IHRS Meet at the Auburn Museum (Indiana) a great success! Other info not available at this time...

A.W.A. AT CLEARWATER, FLORIDA

An active group of A.W.A. members have banded together in the Tampa/St. Petersburg/Clearwater area spearheaded by John Smith, Hugh Coachman and Rex Matlock. Their first venture was a huge success -- a fine exhibit at the Clearwater Amateur Convention (see photo above).
There are approximately 20 technical museums in Europe. Some trace their lineage to the 19th century; the Soviet Union's Polytechnical Museum was founded in Moscow in 1872, and Poland's Museum Techniki (Museum of Technology) began in Warsaw in 1875. Others are relatively new, such as Italy's Museo Nazionale della Scienza e della Tecnica (National Museum of Science and Technology), established in Milan in 1953, and Bulgaria's Museum National Politechnique (National Politechnical Museum), opened in Sofia in 1969.

European technical museums traditionally collect, restore, preserve, study, display and sometimes interpret historic objects. In addition, they work with schools in bringing classes to view the artifacts and often to see scientific or technical demonstrations presented by curators, technicians and others. These museums make minimal use of participatory and other new exhibit techniques. There are few interactive educational exhibits in the American science center sense. In most European technical museums, constructed exhibits consist of dioramas, replicas and working models—usually operated by a museum staff member rather than by the visitor.

The world's first technical museum opened in 1799 at the Conservatoire National des Arts et Metiers, which was a product of the French Revolution. Founded in 1794, the conservatory was a school for the study of the applied arts and sciences. The museum helped to explain the operation and use of tools and machines. Although much of the early collection consisted of examples of the latest technical developments, historic objects began to dominate in 1814 with the receipt of large quantities of scientific relics. In later years, the museum became primarily a storehouse for artifacts.

The Science Museum in London was a spinoff of the "Great Exhibition of the Works of Industry of All Nations" held in 1851 in the Crystal Palace. It added a new dimension to the technical museum by displaying collections of foods, animal products, building materials, educational apparatus and other material—much of it from the international exposition. The museum originally was part of the South Kensington Museum of Industrial Art, founded in 1857. However, in 1909 the art collections of the South Kensington museum were transferred to the Victoria and Albert Museum, and the machinery, ship models, science instruments and other such collections formed the separate Science Museum.

The Technisches Museum für Industrie und Gewerbe in Vienna also was the result of trade fairs—the International Exposition of 1873 and the Austrian Exposition of 1908—as well as the combination of a number of specialized technical collections. Emperor Franz Joseph helped lay the foundation stone in 1909, but the museum was not completed and opened until 1918. Like its predecessors, it emphasized artifacts, but also contained some examples of contemporary science and technology.

The Deutsches Museum in Munich was the creation of Oskar von Miller, a leading German electrical engineer who was involved in organizing two major electrical expositions. Unlike the other technical museums, it included working sectioned models, demonstrations and participation devices to illustrate scientific, engineering and industrial history and principles. Founded in 1903, the museum opened exhibits in the former National Museum in 1906 and old Isar Barracks in 1909 before settling at its permanent site in 1925.

The Deutsches Museum was a pioneer in visitor participation techniques, but only recently has its exhibits been designed for individual rather than group interaction on any large scale. The new chemistry hall, which enables the demonstration of numerous chemical principles and experiments with the touch of a button, typifies the changing approach. Air raids destroyed or damaged about 90 percent of the Munich museum's collections during World War II. When the exhibits and buildings were restored, new exhibit methods were incorporated wherever practical.

The Swiss Transport Museum in Lucerne, for example, installed Cosmorama, a major new multimedia attraction, in 1972. The milestones of space flight are projected on a 1,836-square-foot screen in a spectacular show. The Geological Museum of London has added "The Story of Earth," a large, colorful participatory exhibit on the formation and nature of our planet. The Nederlands Postmuseum in The Hague, which is concerned with both the history and present operations of the postal, telegraph and telephone services, offers direct participation and explanatory demonstrations.

The Palais de la Découverte (Palace of Discovery) in Paris was the first of Europe's new-breed science and technology museums to move away from the emphasis on artifacts. Founded in 1937 as a result of the International Arts and Techniques Exhibition, the institution seeks to further science education and understanding through participatory exhibits and demonstrations. It has few historic objects and many constructed exhibits designed specifically for public interaction and educational purposes. Of the European museums, it most closely resembles American science and technology centers in its operational approach.

The Palais de la Découverte exhibits many scientific instruments that may be operated by visitors, including microscopes, electronic testing equipment, closed-circuit television and an IBM 1130 computer. It also offers such facilities and services as an extensive library, traveling exhibits, study camps, laboratory and factory visits, film and lecture series, and participation in scientific expeditions and research projects.

The Nederlands Instituut voor Nijverheid en Techniek, established in Amsterdam in 1952, has a somewhat different orientation. It seeks to serve as an information center for technical and industrial education, and directs its efforts at helping youngsters make career decisions.
Many of you old timers may remember Matty, R.H.G. Mathews as one of the outstanding amateurs of the post WWI era who later became one of the top-notch engineers in the radio industry.

In the early days of the ARRL he was Traffic Manager of the Central Division; Chief Engineer and co-founder of Chicago Radio Laboratories, which later became Zenith Radio Company. But you may not know he was also a Marketing-Executive, Sales Training and Public Relations Director and a Naval officer in WWI and WWII, retiring in 1957 with the rank of Commander.

Mathews was born in Springfield, Ohio, and soon moved to Chicago. He attended Lane Technical High School and later graduated from Armour Institute of Technology. As a youth he was interested in wireless and had his station in his parent's apartment on Kenmore Ave., where he used the call letters of "RM".

After moving to Carmen Avenue, he obtained his first license with the call "91K", and then a special license, the familiar "9ZN" which became the trade mark "Z-Nith", later "Zenith".

With the rumbling of WWI getting louder, he entered the active Naval Reserve on 1 April, 1917, and serv-
ed all through WWI as a communication officer. With the end of the war, Matty and a friend, Karl Hassel, formed a partnership for the purposes of building and selling radio sets.

Their first factory was a table in Mathews' kitchen. From this kitchen workshop grew the business that was to become the Zenith Radio Corporation.

A rare collector's item: a 1924 Zenith portable

It was not long before larger facilities were needed, and the partners built a shanty-like structure near the Edgewater Beach Hotel in Chicago. That gave them a 14'x18' working space with a cubby hole for their amateur radio station 92N.

The business kept expanding and after a few moves they occupied a three story building at 3620 Iron Street.

With the early broadcasting craze in full bloom, the partnership which now included Lt. Cdr. E. F. McDonald, Jr., decided to get into the broadcasting game. Their first transmitter under the call "WSAX" was a 20 watt DeForest radiophone set located in Zenith's first downtown office in the McCormick Building on Michigan Avenue. Eventually the power was increased to 100 watts and the location changed to the Iron Street factory site.

The transmitter was well designed by Mathews and built by John Prentiss and Karl Hassel. Mathews was in charge of the station. Later a license was obtained for a more powerful station with the call letters "WJAZ". This station was located on the shore of Lake Michigan, near the Edgewater Beach Hotel, and WJAZ started a long and exciting career. Among many of its "firsts" was its weekly broadcast program to the MacMillan Arctic Expedition. Matty was the General Manager of WJAZ.

About 1926, he left Zenith to follow his first love, marketing and sales promotion. During the years 1926 to 1938, he was Vice-President...

About two years before Pearl Harbor, Matty was called back in the active reserves, promoted to Commander on such duties as Navy Recruiting Officer for Indiana; then Inspector of the Navy Recruiting and Induction for the 5th Area; later to the Pacific, where he was first Executive Officer of the Navy Base at Sydney, Australia; soon after to Manus in the Admiralty Islands as Fleet Officer.

When the Japanese surrendered, Matty was shipped back to the States where he served as Liaison Officer with General Hershey until he retired from the Navy in 1957.

Upon leaving the Navy, he went into partnership in an advertising agency in Chicago and then after became Director of the High Fidelity Division of Magnavox, TV and Radio in New Jersey, and then a move to Blonder & Tongue.

In 1964, Matty formed the Coltech Corporation, a management consulting agency from which he retired in 1967.

Matty and his wife now enjoy retirement in Mexico; however, he will make a brief return on Oct. 8 and join the AWA group at their Annual Conference at Dearborn.

--- Leo Gibbs, W8BHT

M A R K E T P L A C E

After much urging, we have Roland Matson back making parts for collectors trying to restore old sets. The following items are now available:

Top portion (cap) of the Westinghouse binding post that is always missing from Aeriolas, Jr. & Sr., RS and RADA. $1.00 each or $10.00/ doz.

Cabinets for Crosley 50 & 51. Completely assembled with all hardware but unfinished. $16.00 including shipping.

Cabinets for Aeriola Jr, Sr. & Amplifiers with hardware but unfinished. $20.00 including shipping.

He plans to make hardware for AK breadboards, Kennedys and Grebes.

Address: Roland Matson, 388 Concord Road, Bedford, Mass. 01730. Tel. (617) 663-3877

(We want to call to your attention the extreme difficulty in making the cap screws noted above which requires a special snub-nose tap (not die) and a special knurling tool. We assume they are made on an engine lathe since it would be un-economical to make them on a HSM or ASM because of initial high tooling cost.)

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Transatlantic Service Marks 50th Year

A half century of transatlantic telephone service was commemorated on January 7 with a call between New York and London, exactly 50 years to the day after the first such call in 1927.

In a conversation between Richard Nichols, vice president in charge of overseas operations for AT&T Long Lines, and Sir Edward Fennerry, deputy chairman of the British Post Office (England's telephone entity) and managing director of telecommunications, Fennerry noted, "In 1927, a phone call across the Atlantic was something new, exciting, not particularly reliable, and probably only for the well-off."

In 1927, a three-minute call from New York to London was $75, or about $250 in 1977 dollars. The same call today can be placed for as low as $4.05 for an operator-assisted connection.
We'll start by saying 99% are good but as in most collecting hobbies there are a few rotten apples in the barrel. First let me tell some of my experiences.

Just after the war (1946) I was wandering through a large surplus warehouse where the owner bought material by the ton, sight unseen. Buried under a pile of old command receivers was an early commercial ship receiver... a rare IP-501. Incredible. But there it was with its huge metal dials and the little door hiding the single tube. The warehouse manager appeared about the time I was about to wipe the dust off the nameplate.

"Say, young fellow, there is a good one-tube set. It even has a meter on the panel."

In a casual manner (holding my breath) I asked the price.

"Well, since it has only one tube and I can't guarantee the meter -- you can have it for five 'dollars.'"

The set is now on the second floor of the A.W.A. Museum. Like models are currently selling for well over $600. Was I really a bad guy?

**ALWAYS OPEN THE LID**

About two years ago I happened to be in a junkshop adjacent to a gas station. Over against the wall along with assorted broken chairs and tables was an early Brunswick floor model radio-phonograph. Lifting one of the two lids revealed a custom-built Radiola III-A with four WD-11s. Again I was taken off guard as the station attendant appeared and promptly tried to discourage me from purchasing it. (I buy gas from him regularly). It seems the phonograph portion was the windup type and the spring was broken; however, if I wanted it, as is, I could take it for ten dollars.

You can't fight this sort of thing, so I "reluctantly" parted with $10. A later check revealed all four WD-11's were good and the spring was not broken... it was just unwound.

**TOO MUCH PUBLICITY**

Others have not fared so well. A few years ago after the "bubble" broke as the result of an article in a well known financial paper, everyone got on the bandwagon and the prices for old radios skyrocketed. I received a telephone call from an antique dealer in the Eastern part of the state who wanted to sell me an Atwater-Kent Model 55 for $500.

I said, "Ma'am, I think your price is a little high."

"No it isn't," was the quick reply, "I just read that Atwater-Kent radios are selling for this price and my set hasn't a scratch on it."

Not wishing to disillusion the misguided women, I made a counter-offer of $450 and was ready to hang up quickly when she said, "I am sorry but the $500 is firm."

I am sure the set is still on the shelf of her shop with a $500 price tag.

**AT LEAST HE TRIED**

About this same time a friend of mine purchased through the mail a three dial (5 tube) neutrodyne from an enthusiastic dealer in New Jersey. Unpacking the set revealed...
everyTHING he hoped for until he lifted the lid and found the dealer had substituted rheostats for two variable tuning condensers. Apparently the original owner salvaged the condensers and the dealer generously filled in the holes with rheostats. After all, something had to hold the two tuning dials in place.

AN OLD GAME

Let us go over on the dealer side for a moment. A scheme that has been pulled several times in recent years is where an unscrupulous collector (A) insists you (B) send him the set before he makes payment. Once the set is received, he (A) will maintain that you had falsely represented the condition of the set or it had been damaged in transit. He will then make a counter offer of a much lower price than originally agreed on.

Frequently the poor fellow (B) who sent the set gives in and accepts the lesser value.

One A.W.A. member didn't fall for this trick knowing the set was exactly what was agreed on and felt his packing was sufficient to prevent serious damage. He would not lower the agreed price and insisted the set be returned.

Our entrepreneur (A) finding he could not get away with his little scheme, apparently took a hammer and smashed in the top before returning the set. Nice fellow. I have the names of several such swindlers on file.

The moral here is: when dealing by mail, do so only with a known collector or a member of a recognized organization. The secretary or treasurer of most clubs will verify membership if you send a SASE.

Speaking of addresses, we know of one case where a person used several different names and addresses to carry on his operation.

One should also be wary of a large city address consisting only of a Post Office box number. It is an easy way to collect money and disappear.

IT IS A FAKE!

Another area to be aware of is reproductions. A very well known and reputable New Zealand collector was "taken" on an Audion swap a few years ago by a New York collector/dealer (?). The tubes turned out to be the worst fakes imaginable and our friend in New Zealand was hardly in a position to argue or bring suit against some one in far-away New York. Characters of this type like to deal with innocent collectors at a distance which minimizes recourse or a big fat punch in the nose!

A preventive measure for honest craftsmen who make good replicas is to place some kind of identification indicating it is modern. An excellent example of this was when W61S stamped his amateur call letters on the tube plate.

Ross was a clever machinist and glass blower who made rare tubes including DeForest spherical audions and Fleming valves back in the '60s. One such Fleming valve can be seen in the A.W.A. Museum. In dead center of the plate are stamped the characters "W61S". Even a novice tube collector would know British Marconi Company did not stamp post-war I amateur call letters on the plate of a 1908 Fleming valve.

MASTER CRAFTSMAN

On the subject of replicas is a 1914 RJ-4 DeForest Audion detector assembled by Lincoln Cundall. The box was made by Ken Conrad and the most un-obtainable name plates are the handicraft of Roland Matson. The socket, rheostat and switch points are from an old junk box.

It would be difficult to distinguish this replica from an original in the A.W.A. Museum if it were not for
the deeply scrawled letters on the under side "REPLICA -- 1971"

The original sells for well over the $400 mark and the dupe for less than $100. I have not heard of replica receivers being sold as originals.

Other than for a model with a few components (such as the RJ-4) it would be foolhardy to make reproductions to sell because of the time and expense and involved. An example of this would be Bob McPherson's Firth receiver described in the March 1977 OTA-- the cost to make is several times the value of an original.

GOOD INTENTIONS

Occasionally a modern reproduction will get on the market by accident. This happened to a well known collector, who in good faith, advertised original crystal detectors of an early vintage at a modest price. A large box of these "oldies" (crystal holder and cat's whisker) had been found in an old warehouse and looked like the real thing. Such was not the case.

After a few sales, complaints started to come in that the detector were modern reproductions and available at a lesser price. The bewildered collector suddenly realized his "find" was not what he thought it was. Not only did he refund the money from his sales-- but he told each purchaser to keep the detector as a souvenir!

THE VT-1 TUBE CAN BE GOLDEN

Sometimes an item has hidden defects not obvious to the lay collector. An example of this are early VT-1 tubes. I was recently asked to consider the value of a large box of these WW1 receiving tubes. A quick examination showed the gold plate tip on the end of each prong had been removed which of course lessened the value. These tubes were available surplus in the 1920's at a ridiculous low price. Thousands were purchased and the thin gold plate salvaged from the end contact. Such was the case of these tubes... all perfectly good (and in all probability new) but minus the gold plate contacts...

THE CASE OF THE MISSING DEALER

As a parting shot, let me tell of an incident that occurred last year at the Dayton Hamvention.

I was returning to the exhibit area from one of my several excursions to the huge flea market where I ran into Jim Fisk, Editor of Ham Radio.

"Bruce, I think I have been taken. I just gave a fellow a ten dollar deposit on a couple little battery sets and told him to hold them until I could return with additional money. I just went back and found he has vanished: car, display of old sets and my ten bucks."

I tried to re-assure him he could have been mistaken. After all, the flea market was the largest of its kind in the world with thousands of cars covering perhaps 25 acres. He may have mis-judged the location.

"C'mon, let's see if we can't find him together."

Returning to the field, we found our way approximately 100 feet down the third lane where Jim thought the fellow should be. No antique radio dealer in any direction. In fact, there was not even a vacant parking spot -- just hundreds of fellows selling modern stuff. Jim was more concerned about losing the opportunity to buy the sets than the ten dollars.

I ran into him the following morning. He was all smiles.

"You won't believe this Kelley, but I just got my two sets. Seems the fellow had an emergency call yesterday and had to leave. He remembered I was with "Ham Radio" magazine and brought the sets to the booth."

Have faith, most are GOOD GUYS!
The Halldorson Company was organized on the northwest side of Chicago prior to World War I as a manufacturer of photographic supplies by two brothers: Thomas and Paul Halldorson. Tom was a former studio photographer and Paul a recent student from the University of Nebraska interested in a business career.

In the early 1920's they branched out into building radio receivers to bridge the seasonal lapses of the photographic business. A one tube receiver was produced in 1922 for use with headphones. By 1924 the company was building four and five tube sets that operated loudspeakers. This was the extent of its involvement in building radios.

After these few years of building receivers, the small company concentrated on producing components for radio set manufacturers consisting mostly of audio transformers and miscellaneous coils. Tom Halldorson was clever enough to design and build the company's coil winding machines, making it possible to market a transformer under the Halldorsion name. Their product became well known in the 30's and 40's and was listed in various catalogs.

During WWII, the Halldorson Company had many contracts with the U.S. Government for special coils and wiring devices. After the war the company was sold to the Essex Wire Company who continued to operate the facility under the Halldorson name for several years at their long time 4500 Ravenwood Avenue, Chicago address.

The Halldorson Brothers were of Icelandic descent, their father and mother having emigrated from Iceland to Nebraska in the 1870's. It is interesting to note that the Halldorsions were acquaintances of other Icelanders in the transformer business, namely Mr. Thordarson of Thordarson Transformer Company fame and Mr. Helgason of Chicago Transformer Company.

Tom Halldorson, who died in 1970 (91 years), was the designer and inventor of the organization while Paul, who died in 1964 (81 years), was the sales promoter and business manager.

(The above information was acquired by George Hausske from a nephew, E. D. Halldorson, who worked summers in the factory wiring 4 tube sets to a sample placed in front of him!)

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**ARCA SUMMER MEET**

Collectors are invited to ARCA’s Summer Meet to be held this year at Elmira and nearby Breeport, N.Y., June 11th with Lauren Peckham as Host. The usual fine program is planned with emphasis on collecting. In addition, AWA will present, by popular request, the "Maj. Armstrong Story". Nonmembers are welcome. Write Bill Denk for particulars:

18 Steeplechase Rd.
Devon, Penna. 19333
Collectors -- this is your column telling of your activities. The deadline for the column is about the time you receive the OTB -- so please write now: LAUREN PECKHAM, ORMISTON RD., BREESPORT, N.Y. 14816

PAUL CRUM (Chicago, Ill.) sent a photo of a very early "Radion" Navy loose-coupler made by Clapp-Eastham about 1914. This unit will be part of a restored spark station he is setting up.

TED HANNAH (Silver Springs, Md.) helped NBC celebrate its 50th Anniversary with a display of early radios at the Hilton Hotel, Washington, D.C.

ROB LESSARD (Minneapolis, Minn.) has a collection of over 100 crystal receivers. He just added a Federal Jr. and was fortunate to find a copy of "Radio Enters The Home", a rare 1922 catalog published by RCA.

FRANK PAGANO (Brooklyn, N.Y.) was interested in the DC Philco set that John Fitch found. Frank located a receiver similar last year. He also found a box of 100 Type P-666 tubes in the basement of an old radio store. He has variations also of both Model 39 and 49 Sparten receivers.

MERRILL BANKROFT (Townsend, Mass.) increased his collection over the winter with a Cranes 6D, Fada 176, AK TA unit, Crosley XJ, QRS tubes and a nice Wm. B. Duck coupler.

BASIL ABBOTT (Richardson, Texas) is doing well since moving to Texas with nice additions such as Western El. 4B with Loop, Zenith 3R, Kennedy 521 amp., Radio-Craft Interpanel, Radiola V and three crystal sets from England.

ROB O'NEILL (Ithaca, N.Y.) located a beautiful AK-4700 broadcast just a few miles from his home.

DICK BANSLEY (Sodus, N.Y.) heard about an old crystal set for sale a few blocks from his home recently. The receiver turned out to be a Murdock loose-coupler and included a table mounted Murdock condenser!

DICK & ANN SCHAMBERGER (Buffalo) were able to dig out of all the snow this past winter to find a Federal 57, AK-10B broadcast, "pickle tube", DeForest 50A4 transmitting tube and a bound volume of 1926 QST.

VINCE HIGHMARK (Two Harbors, Minn.) says high prices for early equipment has caused him to shift his attention to early headsets. Vince sent a large list of the many types he has which includes 3 types made by Baldwin.

JOHN Bvwodo (Lancaster, Pa.) visited a flea market last December and found a large box of telegraph gear for sale for $15.00. Sorting out the material, John found a Martin Vibroplex, Boy Scout training key, 3 Menominee "Leg" keys, Bunnell straight key and 4 Bunnell sounders. An interesting key obtained earlier was one made by Siemens Bros. of London.

DAVE MC KENDRICK (Indianola, Iowa) just finished restoring a Scott World Record Super Shield 9 which is a beauty!

GLEN ANGEL (Clear Lake, South Dakota) picked up a Federal 59 and most of the parts for a AK breadboard Model 12.

JOHN O'HANNON (Richmond, Virginia) obtained a WSA IP-500 that a ham friend found in a pawn shop for only $20.00! At a flea market he located a BC-14A, an ACE V, Crosley 5J and Magnavox N-4 horn, and best of all he made a swap with a local fellow for a Paragon RA-10 with DA-2.

STEVE STER (Putnam, Mass.) is another who hit the market right: Radiola V, Crosley 4-29 and a Chelsea Super Five all for a total of $5. Sadly, the Radiola V has since been stolen.

WILL JENKINS (Davenport, Neb.) recently acquired Wayne Nelson's fine collection. Congrats!

JOE STIFF (Oil City, Penna.) is building up a large collection of fine sets with the latest being a Tuska 1 tube and another AK-10 breadboard plus two old "bugs".

MEL COVER (Ardmore, Penna.) is now the proud possessor of a very fine early CW transmitter using UV-202's (4). It has a beautiful panel full of meters, etc.

ROB FABRIS (San Jose, Calif.) says his house is slowly sinking with all the Scott receivers. One of the latest is a World Record Super (battery set) all copper plated with new 8G tubes.

GARY VICK (Lafayette, Ind.) is now the owner of a DeForest tuning condenser in an aluminum can, beautiful marble base antenna switch and a Mackey plus some early telegraph gear.

FIN STEWART (Paulonbridge, N.S.W., Australia) adds a British 1 tube 1920 set, a Udisco set using rare Philips A135 tubes plus a nice collection of rare tubes such as Mullard RA and Philips B (R type) with UV base.
REISZ MICROPHONE

Pictured is an unusual microphone I have in my collection. The patent calls for a rubber sheet stretched across the face of a marble block to hold the carbon granules in. The microphone I have, however, is not made that way. It has a sheet of mica supported by a sheet of empire cloth across the face. This is what you see in the photograph.

The patent also calls for a single sided microphone -- that is, with a diaphragm (?) on one side of the marble block. There have been many photographs showing the Germans and Russians using this type microphone in the early thirties before Hitler came to power.

This particular mike has two sensitive sides, one that you can see and the other on the opposite side identical to the one visible in the photograph.

The story I got from the fellow who gave it to me in the late thirties was that it was used by Adolph Hitler in one of his many speeches. In the TV series "Victory at Sea", there are several pictures of Hitler speaking into this type of microphone. I understand that this Reisz microphone was extremely popular in Europe but never in the United States.

Not only is the microphone unusual but it is also a beautiful thing to behold since the body is all polished marble!

--- Wardell Smith

DIAPHRAGMLESS MICROPHONE
Filed Nov. 12, 1928

No. 1561 Type 106
U.S.Pat. June 28, '27
CEMENTING LOOSE TUBE BASES

Some collectors are crazier than others and insist on using their old vacuum tubes in working equipment. These often have loose bases and are liable to breakage of lead wires if twisted.

I used to unsolder the bases and remove them. I then put long lead extensions on the originals using hook joints, soldered. The long leads facilitated re-mounting.

Then a finger-full of tile or bathroom cement smeared over the sealing wax in the base would hold it permanently when pressed together. The brand that I used was called, modestly, "Miracle Cement," which had about 40 ingredients including rubber, tar, cellulose, oil, trinitroformaldehyde, noacitol and their common solvent. I repaired a 75-T years ago with this technique and it still holds.

Krazy Glue is much easier and, I think, better. Hold the base tightly against the tube, no clearance is necessary; apply a drop of this cyanoacrylate liquid and it will run around the top of the junction. And that's plenty.

There isn't much in a tube of glue so plastering it up is wasteful. You don't need to go all the way around the base. If some drops on your fingers and they stick together -- separate them immediately! Heed the warning about setting the liquid out of the stem of its applicator, because it will squirt as the warning says. So wear glasses. You will like how it works and any valued old tube is worth its own glue even if you have no other use for it.

--J.K. Bach

More: A similar letter was received from Bill Lightfoot, W1PEG who also highly recommends KRAZY GLUE. He stresses the need to have a clean surface (he uses fingernail polish remover), use very little and avoid getting any on your fingers. Bill paid $1.89 for a .07 ounce bottle...

7-A AMPLIFIER POWER SUPPLY

Few are aware the popular Western Electric Model 7-A amplifier had a companion power supply: W.E. Model 2-A which operated from the 110 v. A.C. line.

Gerald Cunningham, W1CUF has such a unit and believes it is quite rare. We agree and note that it is not mentioned in most early 7-A literature. Was there a technical problem or was it manufactured at a later date?

DE FOREST & SOUND MOVIES

Most radio historians associate Lee de Forest with his radio work -- but few know he pioneered in early sound-on-film motion pictures as early as 1921. One associates the first talks with Vitaphone (phonograph discs synchronized with silent film) which were viewed commercially in 1927. De Forest conceived and perfected sound-on-film several years before this with showings in many theaters. One of the original pioneers who worked with de Forest on this project is still alive: Maurice Zouary. He was recently honored at the Annual DeForest Pioneer Banquet at which time he mentioned he had in his possession several of deForest's original sound films. (Tks Ken Richardson)

CONVENTION 77

The 2nd Annual Convention for the Southwest Vintage Radio and Phonograph Society will be held the weekend of Aug. 6... Forums, auction, contests and large swap fest. More info? Write: Convention 77 S.W.V.R.P.S. Box 19406, Dallas, Texas 75219

Change In Address?

Mail information to the Treasurer who handles current mailing list. (NOT the Secretary)

L. A. CUNDALL, W2LC
69 BOULEVARD PKWY
ROCHESTER, N.Y. 14612
General Information

The Ford Museum and adjacent Greenfield Village is one of the world's finest and largest Science Museums. A minimum of two days is required to thoroughly explore this huge complex. Regular entrance fee is $3 per day for the Museum and another $3 for the Village. A.W.A. will be given a special Conference Rate of only $5 for ALL three days in ALL areas!

Conference Headquarters will be located in the nearby Dearborn Inn. Start planning now for an unforgettable weekend...

TENTATIVE SCHEDULE

Friday afternoon: HUGE AUCTION
Friday P.M.: DINNER and PROGRAM
Saturday: Full day of PROGRAMMING (Museum Theater) with break for LUNCH in Lovett Hall.
Saturday P.M.: COCKTAIL PARTY and BANQUET at Dearborn Inn
Guest of Honor: R.H.G. MATTHEWS
Sunday A.M.: OLD TIMER'S BREAKFAST and PROGRAM.

[Next page center-fold]

EDISON'S MENLO PARK LABORATORY

Members attending the 1977 Conference will have an opportunity to visit Edison's Laboratory which was moved from New Jersey to Greenfield Village. It was in this room where the Edison Effect was discovered, the basis for the modern radio tube. (Courtesy Ford Museum)

Thomas A. Edison

Grand-daddy of the vacuum tube

In published biographies of Thomas A. Edison, the situation at the time of establishing his shop in Newark, New Jersey, is not clarified as to how a twenty-four year-old telegrapher could manage to finance an electrical plant of considerable size. Latter-day, practical-minded engineers wonder about this. The fact is that young Edison had just been awarded some forty thousand dollars by telegraph companies for the stock-ticker and quadruplex inventions, and with old-fashioned caution, Edison had stipulated that part of the money be paid to him each month over a year or two. It was this money that financed the Newark payroll, paid the rent and cost of recently introduced Sprengel air pumps, tangent galvanometers, and other instruments for laboratory uses. The Newark shop was mainly a laboratory, little manufacturing being done there. When Edison reached the age of twenty-nine, the shop was moved to Menlo Park, New Jersey, and larger quarters. There the electric light, the phonograph, and other inventions were launched for commercial promotion.

Mr. Edison was not given to writing about his work but was an avid reader of the writings of others; and in view of the great things he accomplished it is of interest to note the names of some of his contemporaries, all of whom achieved fame in electrical work. Alexander Graham Bell and E. J. Houston were the same age as Edison. Workers who were a few years older than Edison included Moses G. Farmer, Eliasha Gray, George B. Prescott, Henry S. Carhart, and A. E. Dolbear. Henry A. Rowland, Francis Blake, and Eilhu Thomson were a few years younger than Edison. About the time the electric-lighting problems developed, F. B. Badl was brought from Germany as a mathematician. It was not until 1880 that engineering schools included electrical courses.

There were two occasions when Edison wandered close to the borderline of radio discovery. When he was twenty-eight he noted spark effects in metallic systems a distance of about eight feet from a vibrating circuit-interrupter which also was producing sparks. No one present knew the cause of the phenomenon, but Edison had the prescience to tag the effect as ethereal force. Had Maxwell's treatise of two years earlier been digested, very likely the errant sparks would have been pursued to their lair, and Hertz anticipated.

The other occasion occurred in 1883, when Edison was bothered by dark deposits on the inner glass surface of the early incandescent lamps, the negative side of the filament being the offender. But that was five years before Hertz, and thirteen years before the electron was identified by others. However, always a believer in patent protection, Edison filed an application, and the elusive phenomenon gained fame as the Edison effect.
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OLD TYME HAM ADS

WANTED

--Television sets pre-1950, particularly one from 1939.
Gary Hough, 1755 N. Valencia, Santa Ana, Calif. 92706

--Etude socks and Eudora II, dual 1:1,15,100,000 for AK-20.
{Keller, 420 S. 7th St., Lincoln, Kansas. 67455 (Tele. 524-4675)

--Riders Radio Voltuur thru V.
Will buy complete set for these volumes. D.A. Swandal, 112 San Jose Lane, Hanahar, South Carolina 29406

--"S" meter and plastic dial pointer for Hallcrafters Sky Buddy. W. Randall, K5ANE, 1230 Lakehurst Rd., Livemore, Calif. 94551

--AK Model 20 parts: list of tuner, condenser & dial, tube skt w/binding post, rfr panel with original, WD-L tube, pushbutton tone control for 1939 Zenith, Scott MacWilliams, 10 Wyndmere Rd., Bloomfield, Ct. 06002

--Rt. B. Dark #13 or 14 catalogues, other old catalog, need AK var. condenser in excellent condition & RF tube skt. & transformer plus battery switch. Glen Angle, KB7AM, Clear Lake, South Dakota 57226


--Ant. amp. pwr supply chassis 75 watts, 5000 watt 5 meter of Hallcrafters, Diversity receiver. Also external S meter for Hall-750. Sell Electronics July 1932 to 1940 complete. Make offer. John Nagle, K4KJ, 12530 Lawyers Rd., Herndon, Virginia 22070


--Help in researching history of Haynes-Griffin Radio Service Co. for future OTB article. Historical info on company, its products & Haynes biography. George Bechtel, Box 255, Diagman's Ferry, Pa. 16328

--DeForest regular action adapter, Tower Spiffire horn speaker base, pot. for AK #4445 breadboard, corner brackets for CBK Mod. V. B.T. Wooters, W5KSO, 8203 E. Mansfield Ave., Denver, Colo. 80227

--AEF for Crosby 52 & Ace 2B, any cond. 10 degree & knob for SCR-54. Early det. mounts & rotary gap. Have trade items. Will Jensby, W8EOM, Box 86, Davenport, Nebraska 68835

--Add to log of tubes such as 645's, 30's, 19's, 19's. Also early HR0's and National line. Joe Zabat, W3LT, 228 Plummer Oil City, Penna. 16031

--Antique radios, tubes, literature. Garfield Official Service Manuals, Bilby Co. IA, Supreme Vedoloy & 585 Diagonalmet, RCA 6T, Pilot, Howard, NC57 & Spkers for AK8 & AK8B. John Schenkel, RD 1, Box 216, Catskill, N.Y. 12414

--Vol. 2 Riders TV manual and any commercial 10" TV sets such as RCA-8301T or early Westinghouse. Have early Radio News mag. for trade only. Also want early proj. type TV units. Ed Rossig, Box 237, 17 Main St. New Market, Md. 21774

--Ridgeway Depo in my den needs telegraph bug, resonator, plugboard, etc. Also need green glass shade, W & Express Co. signs & Adams & Westlake catalogs & Station agent cap. Jim Bartz, 2501 Cineria Way, El Toro, Calif. 29309

--Table radio Motorola Mod. 5121U, Traveler Mod. 5023 (portable) Bendix Mod. 11W, Philco Mod. 49-602, Emerson Mod. FC-400. Will pay top price. Michael Corda, 45 Penobscot St., New Haven, Conn. 06511

WANTED

--Horizontal coil unit for AK board. Mod. 10 & schematic & operating manual for Supreme Mod. 582 Audolizer. Alex Black, 102 Mineola Drive, Syracuse, N.Y. 13224

--Radiola IV chassis, restorable. Floyd Engels, Davis Rd. Colden, New York 14033

--Crosley box condenser, A-K var. meter & coupled circuit tuner for broadcast & A-K parts.
Lee Kemp, RF6 10, Box 15, Frederick, Md. 21701 (Tele. 301-663-3482

--Information on Colonial Radio Corporation of Brooklyn and Buffalo, N.Y. dates of operation and historical facts. Ross Smith, 1133 Strong, Elkhart, Ind. 46514

--Early TV, pre-1939 receivers, Baird TV, 1939 Fada, etc. or KTE kit. Also 1920-30's or earlier printed material on TV, i.e. Jenkins, Baird, Zworykin. Ford Mitchell, 2003 53rd St., Lubbock, Texas 79412
- Anything pertaining to Crosley such as radios, advertising, signs, books. Have collection of 44 Radio Boys & other Radio Adventure books for sale or trade. Make offer. Jack Bacon, 2340 Alabama Ave. So., St. Louis Park, Minn. 55410

- Longwire military receiver & magnetic wire recorder manuals pre-1955. Xerox ok! SP600VLF, SE1530, RA, RD, RD, RAZ, RSK, BK303, etc. Does any member have a RAA? H. Layer, AV-SSFU, 1600 Holloway Ave., San Francisco, Calif. 94132


- Lamp hood for Radiola F7. Tom McCarthy, WGY Radio, Schenectady, N.Y. 12309

- Parts list, service info, any information on a Crosley battery radio Mod. T-3-R-3, Ser. No. 43230, will buy or copy and return. Freeman Friend, 230 West Pearl St., Butler, Penna. 16001

- Oscillator & power amp coil set (any band) for Hallicrafters HT-6 transmitter (1937?). Craig Hinton, WBDIAH, 2241 Sierra Dr., White Bear Lake, Minn. 55110


- Varicap coupler tube socket for Tuba 224. DA Unit to complete RADA set and AR-1300 crystal detector receiver for Radiola V. William V. Wadell, W8PAO, Box 218, Bethlehem, Georgia 30626

- Scott Special Communication receiver. Always looking for pre-war Scotts. Have 800B console for sale. Bob Fabris, 3026 Morrie Drive, San Jose, Calif. 95127

- Unusual brands of grid-leak resistors with perfect labels. C. Schneider, 6849 Commonwealth Blvd., Parma Heights, Ohio 44130

- Brass trim for dial, tuning wheel & vol. control for Grebe Synchrophase revar. Grebe AFT. Any information on Tri-City Radio "Tresco" receiver. Jim Barrows, W7BTC, 16214 41st Ave., S.E., Bothell, Wash. 98011

- Zenith factory sale brochures for 1936-37 & 38. Will pay top dollar for original or will take Xerox copies. Dan Knotts, 3158 N.E. Azalea, Hillsboro, Oregon 97123

- Tube: Acrograph Blue 110, Sylvania carbon plate 210, other odd make 210's, UX841, odd 201A's, early AC tubes, etc. Cash/swaps. Fred Barry, K5RTU, 105 Solana Drive, Los Altos, Calif. 94022

- Speaker & instruction manual for A-K Mod. 43. Also want Mod. 43 advertising & related material. Mike Bracey, 11065 Mandalay Drive, Dallas, Texas 75227

- A&B Eliminator, need (3) type 30 tubes, Aerioila Sr. possibly incomplete needing restoration. Have Jewel Elec. Inst. Tube tester & items to swap. Write details & SASE. Rick Taylor, 1136 Lea Rd., Chattanooga, Tenn. 37421

- Old radio magazines, books, call books, handbooks before 1930, receivers, catalogs & early wireless gear. Have old gear to sell including Audions, Cash or trade. Ery Rasmussen, W5YTP, 16475 Lowell St., Redwood City, Calif. 94062

- Dial escutcheon for Philco 16B, any misc. Scott parts, top shield cover for AK55, pre '39 TV sets mech. or electrical, any orig. Scott literature. Have Scott dials & strips for sale. George Harris, 7212 36 St., Lubbock, Texas 79415

- National SW-3, SW-5 or HPF converter in good condition. D. Sheehan, WILMS,16 Arcadia Rd., Acknover, Mass. 01810

- AFT & binding post strip, whole or part for CR5, molded tube skt. for CR-5, coupler & det. skt. & rhp. utb for breadboard, Buy or swap. Yates Hogg, W21LD, 3 Fineview Dr., Utica, N.Y. 13502

- Any AK breadboard parts, old crystal sets, Synchrophase cabinet, Federal cabinet (or replica), Murdock kick-back protector. Pat Stewart, W4YGC, 1404 Ruth, Walla Walla, Wash. 99362


- To buy, chassis & parts for superhets of the '30s, want large AM xfrms (0 1/4x2 1/4x4/4). Also power xfrms, tube shields, 2 gang tuning cond, band switches & coils for AM & SW plus unused Bad chassis. Rodney Schrock, 402 Lincoln St., Somerset, Pa. 15501

- Old meter catalogs (rep's ok) & meters, any kind before 1920. Indicate mgf., mod., ser#, cash & condition. Also Radiola 26 loop any condition if 7turns on loop. Leonard Cartwright, 10863 Northfield Square, Cape Rito, Calif. 96014

- Gutman U-36 transmitter and Sargent MA-21 receiver. Will buy or swap one of two pieces: Speaker parts (new) for AK-10 with 1924 invoice. Also want Racial All-wave Communication receiver. David Thomas, Box 11531, Tampa, Fla. 33680

- Kellogg tubes & Kellogg radios, schematics, advice, literature or anything pertaining to Kellogg. M. Rosenthal, 507 S. Maryland Ave. Wilmington, Delaware 19804

- To use in building superhet receiver. 2 Bremner-Fully Type L 23 plate var. cond, one All American Type R-120 & one Type R-130 xfrms. B. T. Wooters, W5KSO, 8303 E. Mansfield Ave., Denver, Colo. 80237

- Booklets: "How to Build & Operate SW Receivers" and "101 SW Hoot- ups" pub. by SW Craft Magazine. Frank Kohn, 7116 Capital View Dr., McLean, Va. 22101

- Need base & driver for AK Type L horn, DA section of RC set, Aerioila Sr. Will swap cathedral & battery sets. Dave Duzer, 2088 Maywood, Port Huron, Mich. 48060


- Damont RA-102 TV's, Damont 304H scope pwr. trans, Riders 18 thru 23 TV vols., AK horn driver, AK 55 spkr, AK-19 layout foto, Radi 17 lamp hood. Have other Riders, etc. SASE for list. Christian Pant, 245 Faircount, Jamestown, N.Y. 14701

- Kellogg Type 403 AC triode, Weston 2nd Mod. 506 0-7 v. DC voltmeter for 8-C Mod. 501 revr. or any 2nd moving coil DC 0-1 ma. meter as substitute. Bob Lindsay, 901 Ferngrove Dr., San Jose, Calif. 95129

YOUR AD MISSING ??

If it is, it was mailed too late. Unless you can personally deliver the ad (not U.S. Mail) to Hollcomb, it MUST be mailed at least one week BEFORE Deadline (Apr 8). See notices in OTB.
trade battery sets such as AK-21, Aerocool Jr., Radiola III for cash or 1948 Philco TV's especially projection set (complete or guts). A good unit Rotel CT-100 & other early color TV, Dave Cleland, Box 183, Reinhold, Pennsylvania 17569

sell & page copies Operating Instructions Croxley 51 Special. OK for any 50 series model & Croxley buffs. One dollar postpaid. Gordon Ekland, 6181 Gunpowder Lane, Pocopress, KY 40430

Navy SE 1597, Navy SE 1697; Freed-Elsman NR-5 plus many tubes (some brass base) and some parts. SASE for list. Harry Cap, 190 Beach St., Bridgewater, Mass. 02324 (Tel. 617-697-8484)

AK Mod. 30, 35, 46, 812, Browning-Drake DR, official kit. Radiola 3 & 3A. Set of AC #2, double kite K1, K2, K3 spkers. AK Type E, Radiola 375, horn. Sonochord, Temple, S-C, & others. Sell or swap for 1 tube sets. Phil Winer, 22 Hewlett St., Roslindale, Mass. 02131

RCA AG-341 loop repro. kit inc: woven brown braid covered wire, etched brass name plate, 1924 list. card, mahogany frame. $50. FOB USA. Satisfaction or refund. Ant. wire avail @ $1 for card & wire sample. Glenn Streeter, 26009 Crenshaw Blvd, 106D, Torrance, Calif. 90405

Send large SASE for list of tubes, magazines, meters, books & parts. B. Feher, 7714 Amherst Drive, Manassas, Va. 22101

Philco Mod. 25 make offer. Stewart-Warner #25 @ $40. RCA VST of R-2 $25, AK #30 & 40. Others. SASE for list. Tim Martin, WAWEG, 42 Henry Ave., Pittsfield, Mass. 01201

Old radios, books, etc. SASE for list. Want old air corps radios. WADDY, 114 Lachine, Milwaukee Wis. 53212

Brass base UV-200-1A's. SASE for other material. Fred Gear, 6042 Brookridge Rd., Jacksonville Fl. 32210

Trade QST's 1930 to 1950 for what have you? Other mag. for sale/trade. Send large SASE with 3 stamps for list. Want junker Paragon DA-2 amp. anything wirelesss including homebrew. Hink Ammon, P.O. Box 104, Mt. Carmel, Ill. 62563

Radiola I Type ER-733A beautiful originals, Ace Type V in good condns (water stain), both reasonable. SASE. Wayne Brewer 1450 Worcester Rd., Apt. 8409, Framingham, Mass. 01701

DeForest, four tube reflex with xtal detector, panel & chassis but no cabinet. AFTs slightly damaged but otherwise mint. Make offer. Cliff Daykin, W2AEF, 10 Oxford Place, Geneva, N.Y. 14456

National SW-5 (predecessor to SW-8, same external coils w/ caps & audio). Labeled "Jackson Labs" (see 7/7 TC) dated 1/31, good shape w/80 & 40m coils. Want magazines & unusual tubes. Alan Douglas, Box 225, Pocasset, Mass. 02559

Radios, tubes, speakers, books, magazines, test eqpt., parts plus more. Ask for List SLYR-77. Send large SASE & 50¢. Frank Krantz, 100 Osage Ave., Somerset, N.J. 08883

Scott radio collection, also baterry radios, speakers, TV's, etc. Send SASE for details. Everything must go. Jim Clark, 1006 Pendleton Dr., Lansing, Mich. 48917

Several new books and other items for the collector for sale. Write for latest list. Vintage Radio, Box 2135, Park View, Oakland, California, 94621

Wind replacement new 864 with custom made adapter $7.50, 1st class prepaid. Want Marvel crylcalized set of 1920's & AK boardoard. Don Whitemore, 36 Masteron Rd., Bronxville, N.Y. 10708

G.R. Frec, wavemeter Type 224L, 6 coils-15 to 600 m., charts for all bands & capacity. Have Likeowire & WE tubes. Ray Nichols, W2KN, RT. 2, Snyder Hill Road, Cattaraugus, N.Y. 14719

Sell/trade: "Radio" 1914-48; C-D Capacitor 1940-61 incl., some complete yrs; RCA TV Service Clinic Notes, 1952 Lectures 1 thru 9; John Schretzman, W2CAJ, 140 Southern Blvd., East Patchogue, N.Y. 11772

Sell/prefer trade: Grebe CR-8, DeForest Interpanel, AK9 breadboards #445, Radiola RC, III & IIIA. Want other Grebes, breadboards, spark gear. Mike White, 13 Countryview Dr., Naperville, Ill. 60540

Sell/trade 10 volumes Hawkins Electrical Guide (1917), good condition. J. Wisniewicz, W2DQC, 229 Squires Ln., Pleasantville, N.Y. 10570

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old transmitting tubes such as UV72, etc. SASE for list. Want AK boardoard, old tube manuals & info on across military types to common tube #. D.A. Swindal, 1128 Jose Lane, Hanahan, South Carolina 29410.

B-13 10 & 12 DCC wire @ $3 per 100 ft. Nickel plated M8 fillister head, etc. SASE for list. Want WARE TU chassis, Radiola 24 case & Ails from 20's. Hay Hartard, W2FRA, 2662 Mary Lane, Escondido, Calif. 92025

Cincinnati's Powell Crosby Jr. story of Crosby & his company (reviewed in OTB 17-5-20) now available again at $2.50 plus 30c postage. Joe Rice, 916 Western Ave., Covington, Kentucky 41011

early battery & AC sets and some parts. Will also swap SASE for list. Steve Siter, KI2GN, 488 Marshall St., Paxton, Mass. 01612


EARLY MIGNON RECEIVERS

Members thumbing through pre-WWI magazines frequently find ads for Mignon tuners [and receivers] manufactured in Elmira, N.Y. The sets were made by a fellow named Ernst Mignon who was rather a colorful character according to several AWA members who knew him.

Lauren Peckham documents Mignon's early years [and equipment] in a well written article in the ARCA, March '77 "Gazette". This particular issue is a must for collectors who wish to identify early Mignon sets.

Lauren's article cuts off after WWI but Mignon lived to manufacture early TRF receivers [Rex Matlock has one] and to make a variety of radio and electrical components for the next 30 years in several locations including Rochester.

Mignon's last business venture [in the early 50's] was making diathermy machines in Lima, N.Y. -- only 12 miles from Holcomb! Apparently the self-exalted oscillators in his machines caused considerable RFI and he was forced to close shop. Rex has given some thought to making a slide show on Mignon and his products.

"Matty", 92N will autograph your copy of "200 Meters and Down" and any other book or magazine in which his name appears if you bring it to the 1977 Conference, Dearborn, Michigan, October 8.

RYAN LAMP DISPLAY

Visitors to the AWA Museum this year will be greeted with a colorful display at the head of the main stairs -- a lighted showcase of unusual light bulbs. The bulbs were given to the Association by Bob Ryan (Anaheim, Calif.) and represent 90 years of development: all types of filaments, sizes and brilliant colors. Some thought had been given to lighting the filaments of some of the more unusual types but the suggestion was discarded because of their rarity.

OUT-OF-PRINT OTBS

Many requests have been received indicating an interest in purchasing back issues of the Bulletin that are out-of-print. Unfortunately, requests are still coming in and we have been unable to summarize our findings or determine cost. More later...

A.W.A. VACUUM TUBE GROUP

Members interested in the history and development of tubes are welcome to join AWA Vacuum Tube Committee. Send $2 [to defray cost of Newsletter] to: Lauren Peckham, Ormiston Rd., Breezport, N.Y. 14816

Nipper Is Back

Little Nipper, the dog symbol for RCA records which was originated in the 1920s and put to rest a decade ago, has been resurrected to be the symbol of RCA's new line of CB radios.

NORDEN-HAUCK

A short writeup/article on the Norden-Hauck company/receivers for the Bulletin would be greatly appreciated. Anyone have ANY information on the subject? B.K.

Widow Gives Kansas

'Dr.' Brinkley Papers

The private papers of "Dr." John Brinkley have been donated to the Kansas Historical Society by his widow, Mrs. Minnie Tealha Brinkley. Brinkley, who became known for the transplantation of glands into humans in a Milford, Kan., clinic, was a three-time candidate for governor of Kansas. He also built the state's first radio station, KFKB. In 1939, his license was revoked by the American Medical Association. He moved to Del Rio, Texas, where he died May 28, 1942.

STUBBLEFIELD, LOOMIS, ET AL

Every new radio author (?) likes to extol the merits of Stubblefield and his coils (and ground rods), Loomis flying his kite and others dabbling with either induction or conduction. (Where do Hertzian waves or radio get into the picture?) In a recent issue of the Northwest Vintage Radio Society's "Call Letter", a writer hits this whole silly business right on the head by saying Loomis, like Benjamin Franklin, "was just plain lucky he wasn't struck by lightning while tapping the atmospheric charges and could not construe his experiments as contributing much toward developing radio communication." Nicely said!
On a cold clear winter's night the ether sparkles with only an occasional static click in the fones. The low moan of the power supply seems soothing.

You tune in a weak signal and its crispness makes easy copy. The nearby signals of traffic men step right along with a bell-like clarity and makes no breaks. You tune to 3584 kh and it is so quiet that if you hit the key you feel like your signal would penetrate far space.

That's the way it was January 14 at 2295Z. At 2300Z all hell broke loose and the 1977 Old Time Transmitter Contest--AWA QSO Party was underway.

As soon as the first AWA calls were completed, the more patient ops pounced on them and then there was a gradual spacing of frequencies to avoid QRM and everyone settled down for a night of fun.

There were some distinctive sounds and fists so you could tell a station without his signing. Scores piled up fast those first few hours and one could stop to listen and enjoy other QSO's later on as longer skip set in. A new-comer would start up and the resulting pileup was like rare DX.

A hard-working veteran of the Old Tyme Xmt Contest/Party came up with the winning score. Congratulations WIDM, Art Goodnow of Darien, Conn. and thanks a million for the thrill of snappy operating and a sweet sounding note.

Our runner up this year with a fine score is W2LV, Bob Morris of Spartan, N. J. Fb Bob ! These two crack operators, riding the jet stream, ran way ahead of the rest of us, so it behooves us to get those multipliers and work more diligently next year. The pride is yours and the pleasure is ours and we all glow with you...

Distinctive signals ? Yes, there was W3QA with his cute little chirp that nostalgically reminded one of the many signals of the 20's. An O.O. of the ARRL with no romance in his soul sent Bruce greetings on Form #10A with his friendly advice. W3QA was using a UX-250 (5 to 9 wts.) with a chemical rectifier (!) at the time and vows to progress to xtal control next year.

W1BVL stirred more memories with his Xtal controlled 807 (8 wts) and a rectified spark coil plate supply delivering a nice DC note and a low growl. Dick used a Reinartz regen set containing a 199 det. plus 199 one step.

RAC notes were discernable at both W5PDM and W8EGF but they both disappeared shortly due to trouble with old parts.

Fran, W2BJL supplemented his oil burner those cold nights with a fired up UV-202 Hartley oscillator feeding another UV-202 buffer driving a UV-204A amplifier with 165 watts in. Again he used his Grebe CR-18 tied to batteries. All that glow got to him and the second week found Fran in Grenada, W.I. using the call VP2GJL and successfully creating a pile-up of his own. He only operated 1 hour and 5 minutes then went for
a stroll in the moonlight with "grandma"! 13 hours, 31 mins later he worked Art, WIDM on 20 meters.

Another MG set turned up. W2FW has an ESCO 110 volt motor and 350 volt DC generator which he bought 2nd hand in 1927 from the Queen City Electric Co. for $30. After a few trades it ended up at Uncle Dave's in Albany. Jack got it back for $5. It blew fuses and made hash in the receiver when coasting to a stop. Jack will fix all these problems by next year, so "Good luck Jack!"...

Why aren't there more mid and far west participants asks W7KE. Only W7KE, W7JY and W0JF came on this year. More of the western stations would help scores in those areas. AWA has a fair percentage of membership in 0, 6 and 7 call areas so there should be greater participation from there. South and Southeastern areas were weak also.

How much more fun it is to make old equipment work than to just sit and admire its shiny knobs and dials. The real nostalgic romance comes of operating!

A few contestants, for one reason or another weren't able to get going until the last hour or so of the operating periods. All would be quiet since the vets had worked hard and were just listening. As soon as a new call was logged the adrenalin flowed and a flurry of activity started. The late comer seemed bewildered at the QRM and had to work all the harder to sort out the signals. It sounded like a wolf-pack closing in -- but what a pleasant sound, real life still in the "party"!

More old time receivers came to light this year and we all look forward to another ball next year. Meanwhile, really reach down into the junkbox and dust off some treasured item and put it to work.

Seventeen participants worked four or less contacts with six making making only one. Everybody would have enjoyed the party all the more if you made a larger contribution. How about it next year? (Cont. on next page)
1977 OLD TIME EQUIPMENT TRANSMITTING CONTEST

The following tabulation of results is made up from submitted logs. A station may have had a higher score but did NOT submit a log.

**Stations with Multiplier of 4. Old time TX and RX in use**

<table>
<thead>
<tr>
<th>STATION</th>
<th>SCORE</th>
<th>TRANSMITTER</th>
<th>RECEIVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>W2LV</td>
<td>373</td>
<td>47, VFO-46, bfr-[2] 210 PA - 80w.</td>
<td>HRO</td>
</tr>
<tr>
<td>W1PEG</td>
<td>236</td>
<td>6L6, VFO-807, bfr-[2] 6B8 PA - 300w.</td>
<td>HRO</td>
</tr>
<tr>
<td>W4TS</td>
<td>206</td>
<td>Meisner sig. shifter with 6L6 PA</td>
<td>AG8X &amp; Super Pro</td>
</tr>
<tr>
<td>W2BJ</td>
<td>156</td>
<td>UV-202 hart- 202 bfr-204A PA - 165w</td>
<td>CR-18 &amp; HQ-120</td>
</tr>
<tr>
<td>W2AN</td>
<td>156</td>
<td>6L6 MO- TZ-40 PA - 35w.</td>
<td>SW-3 &amp; HRO</td>
</tr>
<tr>
<td>VE3BDV</td>
<td>156</td>
<td>6L6G - 30w.</td>
<td>NC-101X</td>
</tr>
<tr>
<td>W1VL</td>
<td>140</td>
<td>807 xtal-spk coil pwr supply- 8w.</td>
<td>Reinartz 2 tube</td>
</tr>
<tr>
<td>W7KE</td>
<td>132</td>
<td>210, MO-DeF 410 PA - 40 w.</td>
<td>SW-3</td>
</tr>
<tr>
<td>W2DF</td>
<td>130</td>
<td>210 H1C cso- 20GA amp/cblr - 100w</td>
<td>HRO</td>
</tr>
<tr>
<td>W2FW</td>
<td>80</td>
<td>802 ECO - 807 PA - 30w.</td>
<td>FB7-X</td>
</tr>
<tr>
<td>W7JY</td>
<td>56</td>
<td>59 xtal - PP46's PA</td>
<td>PKE-69</td>
</tr>
</tbody>
</table>

**Stations with Multiplier of 2. Old time TX or RX used all or most of time.**

<table>
<thead>
<tr>
<th>STATION</th>
<th>SCORE</th>
<th>TRANSMITTER</th>
<th>RECEIVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>W28GN</td>
<td>160</td>
<td>2050 xtal-205 bfr- WE 2110 PA 100w.</td>
<td>Modern</td>
</tr>
<tr>
<td>W2LC</td>
<td>147</td>
<td>6AG7 xtal- 807 PA 40w.</td>
<td>Modern</td>
</tr>
<tr>
<td>W3QA</td>
<td>132</td>
<td>UX-250 Hartley, chem. rect. - 8w.</td>
<td>Modern</td>
</tr>
<tr>
<td>W2AFE</td>
<td>92</td>
<td>210 xtal - 210 PA - 35w.</td>
<td>Modern</td>
</tr>
<tr>
<td>W9AX</td>
<td>84</td>
<td>Modern</td>
<td>SW-3</td>
</tr>
<tr>
<td>VE3AFW</td>
<td>78</td>
<td>RK-23 Tri-tet 40w.</td>
<td>Modern</td>
</tr>
<tr>
<td>W8GF</td>
<td>76</td>
<td>CX-310 Hartley 15w.</td>
<td>Modern</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STATION</th>
<th>SCORE</th>
<th>TRANSMITTER</th>
<th>RECEIVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>W8AD</td>
<td>55</td>
<td>Note: All members in the first two classifications appreciate your efforts in joining the fun and submitting logs. We hope you will have some Old Time gear next year and spend more time with us.</td>
<td></td>
</tr>
<tr>
<td>W9A</td>
<td>51</td>
<td>Note: All members in the first two classifications appreciate your efforts in joining the fun and submitting logs. We hope you will have some Old Time gear next year and spend more time with us.</td>
<td></td>
</tr>
<tr>
<td>W8G</td>
<td>33</td>
<td>Note: All members in the first two classifications appreciate your efforts in joining the fun and submitting logs. We hope you will have some Old Time gear next year and spend more time with us.</td>
<td></td>
</tr>
<tr>
<td>W2KQ</td>
<td>30</td>
<td>Note: All members in the first two classifications appreciate your efforts in joining the fun and submitting logs. We hope you will have some Old Time gear next year and spend more time with us.</td>
<td></td>
</tr>
<tr>
<td>VP2GI</td>
<td>19</td>
<td>Note: All members in the first two classifications appreciate your efforts in joining the fun and submitting logs. We hope you will have some Old Time gear next year and spend more time with us.</td>
<td></td>
</tr>
<tr>
<td>W3GU</td>
<td>19</td>
<td>Note: All members in the first two classifications appreciate your efforts in joining the fun and submitting logs. We hope you will have some Old Time gear next year and spend more time with us.</td>
<td></td>
</tr>
<tr>
<td>W2CO</td>
<td>11</td>
<td>Note: All members in the first two classifications appreciate your efforts in joining the fun and submitting logs. We hope you will have some Old Time gear next year and spend more time with us.</td>
<td></td>
</tr>
<tr>
<td>W3AW</td>
<td>9</td>
<td>Note: All members in the first two classifications appreciate your efforts in joining the fun and submitting logs. We hope you will have some Old Time gear next year and spend more time with us.</td>
<td></td>
</tr>
</tbody>
</table>

**Stations with Multiplier of 1 using modern equipment.**

<table>
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<th>TRANSMITTER</th>
<th>RECEIVER</th>
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<tr>
<td>W8G</td>
<td>55</td>
<td>Note: All members in the first two classifications appreciate your efforts in joining the fun and submitting logs. We hope you will have some Old Time gear next year and spend more time with us.</td>
<td></td>
</tr>
<tr>
<td>W1A</td>
<td>51</td>
<td>Note: All members in the first two classifications appreciate your efforts in joining the fun and submitting logs. We hope you will have some Old Time gear next year and spend more time with us.</td>
<td></td>
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<td>W9A</td>
<td>33</td>
<td>Note: All members in the first two classifications appreciate your efforts in joining the fun and submitting logs. We hope you will have some Old Time gear next year and spend more time with us.</td>
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<td>W2KQ</td>
<td>30</td>
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</table>

**Other participants, some of whom are known to have Old Time gear:**


**Participants in previous years:**


**Freinds of yours? If so, go after them for next year....**

**Silent Keys....**

W5OA, W8FX, K2LBB, W2WS, W5BMW, W1HJ and W5EWH. -- R.I.P.

**W7KE THE CIRCUIT OF THE TRANSMITTER ILLUS. TRATED ON THESE PAGES**

C1 - 500-µfd, receiver type variable condenser.
C2 - 1000-µfd, grid det. condenser.
C3 - 50-µfd, grid det. condenser.
C4 - 200-µfd, fixed bypass condenser.
C5 - 1000-µfd, filament by-pass condenser. Made of 1/16" outer diameter, 1/16" inner diameter, copper tubing.
C6 - 440-µfd, fixed oscillator grid condenser.
C7 - 1000-µfd, oscillator by-pass condenser.
R1 - Center tap resistor 50- or 100-øm resistors or Christmas tree lamp.
R2 - 100,000-øm grid leak used to drop plate voltage for oscillator.
R.P.F. - Three sections each of 50 turns of 24 gauge d.c. wire wound in 3/8" frame in a 1/4 turn form and connected in series.
**QUE.** What is the origin of the name "SHAW" tube base? What is the difference between a SHAW and a UV base?

**ANS.**

The "SHAW" base is so called because it was the invention of Henry S. Shaw, president of the Shaw Insulator Co. It was of the UV type and was used on tubes made by Moorhead anddf, until about 1925, by De Forest. The photograph shows a De Forest Type 20 equipped with a Shaw base. The metal portion of the base is a cylindrical brass shell, sometimes nickel-plated, with four holes, 90 degrees apart, just above the bottom.

The shell is held in place by the molding compound which fills the base and the holes in the shell. The letter "S", surrounded by a geometric design, appears as a raised letter in the molding compound on the bottom of the base.

The early UV base had a metal shell. The four pins were mounted in a porcelain disc which was held in position by a contoured rim at the base of the shell. The assembly was secured by filling the shell with compound similar to that in the Shaw base.

**QUE.** I have been told that by placing a shield around the ELECTRAD diode and winding wire around the outside of a WELSH diode, these tubes would work as triodes. Is this true?

**ANS.**

In the case of the ELECTRAD diode, this is highly unlikely, since the filament was entirely surrounded by a close-fitting solid sheet cylindrical anode.

The WELSH WT-501 diode had a winding on the outside of the bulb, which was alleged to act as an electrostatic control electrode. Since this winding was at a considerable distance from the filament-anode assembly, and the anode was quite close to the filament, the external wire-wound electrode probably had a very small effect on the electron flow from filament to anode. It certainly would not function as an amplifier.

---

**Convert Your Crystal Set Into Tube Set at Small Cost**

You can now enjoy wider range, greater volume of sound and pure tone and do away with fumbling around for a sensitive spot, if you make a Tube Set out of your Crystal Set by adding the Peanut Tube W.T. 501 and a few inexpensive accessories. Full directions packed with every W.T. 501.

*Welsh PEANUT Detector Tube W. T. 501*

Can be used on three dry cells or one recent 6-V "A" battery. Consumes less than half as much current as ordinary tubes, consequently does not use up batteries as fast.

Nickel-plated socket, molded base, double spring contacts, etc. Adaptor for standard V.T. Socket, $0.50 extra.

If not at your dealer's, send us your name and address with money order and we will send you a Special Reduced Price for this important item.

Radio Research Guild
46 Clinton St.
Newark, N. J.

$2.00 Immediate Delivery
Members have wanted to know more about tubes of the 1930's as mentioned in previous OTBs. Alan Douglas obligingly sent this photograph of Wunderlich types NOT made by Arcturus. Front row: Sylvania 69 and 29, Rear row: Sparton 70 and Kenrad Types 90, 92 and KR-20. The 29, KR-20 and 90 are 2.5 types and the 69 and 92 6.3 v. filaments. Characteristics vary but all have dual grids and 6 pin bases. These are all tubes that can be found with some digging in old radio shops and an occasional flea market where someone is selling out. They will in time become quite rare.
The Golden Gate Chapter of the Society of Wireless Pioneers met in Oakland, Calif. for their mid-season meeting with 110 members present. Thorne Mayes, the Society's Technical Associate, presented a paper titled "History of the Federal Telegraph Company 1909 to 1920," which stressed the importance to our Navy of the development of large arc wireless transmitters just prior to WW-I.

Bill Brenman, incoming President presented two achievement awards to Frank Geisel, retired manager of KPH and to Dr. Leonard Fuller, Chief Engineer of Federal Telegraph Co. 1903-1920, for his untiring effort in developing arc transmitters 30 to 1000 kilowatts size which was so urgently needed by our Navy."

PICKERILL CHAPTER MEETS WITH M.T.C.

Members of the Pickerill SWP Chapter and members of the Morse Telegraph Club had a joint meeting April 23 in Summit, New Jersey. A large turnout enjoyed the A.W.A. show covering Elmo Pickerill’s career. A seldom known fact is that Pickerill was a railroad telegrapher when he joined DeForest at the St. Louis World’s Fair in 1904.

The Morse Statue In Central Park

Yes, there is a statue of Samuel F.B. Morse in New York’s Central Park and a Memorial dedicated to ship operators who lost their lives at sea in Battery Park (tip of Manhattan).

The Morse statue was dedicated while he was still alive: 1871. The dedication attracted an audience of 25,000 with speeches by Gov. Hoffman and Western-Union President William Orton. To the best of our knowledge, the statue is still in excellent shape.

The Battery Park memorial hasn’t fared so well. I read somewhere about a year ago where vandals had either defaced or removed the bronze tablets. I have not heard whether they have been replaced. They are fairly good size and were mounted on the sides of the stone monument. This fine memorial was erected and is maintained by members of the Veteran Wireless Operators Association. I have seen the VWOA memorial many times but not the one in Central Park. ——C.Z.

AMATEUR RADIO EXHIBIT AT THE WORLD’S FAIR

Forty-four years ago, in the depth of the depression, there was a great Fair in Chicago. I am sure not too many AWA members had the good fortune of attending, but if they had, they would have seen the historical exhibit noted on the next page. I wonder what happened to all the gear?

"Bud" Schultz, W6CG, ex-W9SCB, a Committee Member at the Fair, sent AWA a booklet describing the amateur activity (W9USA). At the end of the booklet were several pages of autographs. Here are a few of the names. How many do you recognize?

Fred Schnell - W9UZ
A. Hebert - W1ES/W1MK
Don Wallace - W6AM
Robert Kruse
E. Woodruff - WOCMP
J. Billey [Erie, Pa.]
Loren Windom - W8UZ
Hiram Percy Maxim - W1AW
Wayland Groves - W2NW
John Reinartz - W1GP
Clinton DeSota - W1CBO
Copyright Law to Change; Revisions Effective 1978

The first substantial changes in the nation's copyright law since 1909 were approved this fall to become effective Jan. 1, 1978. If interpreted literally, these changes will alter the fundamental slant of the law from the publisher to the author.

In the works for 12 years and signed by President Ford in October, the new law will protect all works eligible for copyright from the moment they are created, whether they are published or not. Prior to the revision, unpublished works were protected only by common law.

The old copyright law provided for two 28-year terms of protection from first publication or registration. Works currently published and in their first 28-year term now must be renewed at the end of that period for a second term of 47 years. Copyrights already in their second 28-year term now are automatically extended to the 75-year maximum protection for old works without requiring renewal.

Works published after January 1978, when the new law becomes effective, will be protected for the life of the author plus 50 years after his death. The new law will not restore copyright protection to any work which has already gone into public domain.

The new copyright law contains a provision designed to protect an author from himself, in effect. When a work is published, rights are generally transferred from the author to the publisher. Under the old law, at the end of the first 28-year period, rights reverted to the author, who then could resell his work at that time at the increased value. Persons eager to be published usually signed this right away in contracts drawn up at the time of the initial publication. When the new law goes into effect, the author may serve written notice of the termination of transferred rights at the end of 35 years. This privilege can not be signed over to the publisher at initial publication. Provisions are made in the law for the authors of works already published to regain their ownership rights at a specific time if they choose to do so.

An officer or employee of the United States government cannot copyright works done as part of the job's official duties.

The publisher of a work can still be regarded as "author" and holder of the initial copyright if the work was specifically "made for hire," but the new definition of the latter term is narrower in scope now. A work is considered "made for hire" only "if it was prepared by an employee within the scope of his or her employment," or if it was "specially ordered or commissioned" for certain purposes, examples of which are stated in the statute, and the parties sign a written agreement to that effect. These are the only two definitions of "made for hire" that will be considered legal. The termination of transfers of rights by the author and his family does not apply to works made for hire.

The law does place limitations on the owner's rights which come under the term "fair use." Conditions include the purpose and character of use—commercial or nonprofit educational; the nature of the copyrighted work; the amount and substantiality of the part used in relation to the whole work; and the effect of the use on the potential market for the work. Similarly, libraries and archives may make or distribute single copies for non-commercial purposes.

The new law establishes a copyright royalty tribunal to adjust royalty rates when necessary in the categories where such rates are set by law. It will also serve to distribute certain statutory royalties outlined in the law.

In order to qualify for copyright protection under the old law, it was mandatory that published copies contain a correct copyright notice. Published works must still bear the notice, but omission or error does not result immediately in forfeiture of rights as provided by the old law. A certain time period is established for corrections in the notice. At the same time, persons innocently infringing on copyrights due to the omission of the notice or errors in its printing will not be liable for damages under prosecution.

Registration of copyright is not required for protection by the new law; it is only necessary in case of an infringement suit. However, aside from some specific exceptions noted in the law, statutory damages and attorney's fees are not payable for infringements occurring prior to registration.

These are the major clauses of the new copyright law of concern to the history profession. There are additional sections covering xerography, music, public broadcasting, cable television, and manufacturing of books within the United States and in foreign countries.
OLD TIME TRANSMITTER

A 240-Spark Note from a 60-Cycle Supply Current
with the
AMRAD Quenched Gap

The "Amrad" Quenched Gap is designed to fill the need of an amateur gap to operate on commercial 60-cycle supply which will give a relatively high note (240 sparks), be efficient, and emit a wave conforming to the radio communication laws of the United States.

The high note is obtained on multiple discharge by adjusting the voltage across the gap so that the primary condenser will discharge twice per half cycle or four times per alternation, thus producing a 240-spark note when used on 60-cycle supply. To obtain this high note it is only necessary to adjust accurately the voltage of the transformer with respect to the number of plates in circuit of the quenched gap. This may be done by inserting a variable reactance coil or resistance in series with the primary of the transformer.

Any leakage tongue or path on the transformer should be removed, as the external reactance accomplishes the same purpose.

The wiring diagram shows the proper connections and arrangement of apparatus.

The adjustment of this voltage is critical and is accomplished in two steps: first, the coarse adjustment, by adjusting the number of individual gaps in the circuit so that the spark will take place freely across the gap. Second, the fines adjustment, by adjusting the reactance or resistance in the supply line until a clear 240-spark note is obtained. This is readily determined by listening to the note in a loosely coupled receiver or wave-meter. Reactance should be inserted in the line until the gap refuses to break down, then upon gradually reducing the reactance the transmitter will first emit a 60-cycle note. Upon further cutting out the reactance the note will break into a pleasing double frequency or 240-spark tone.

The resistance or inductance to go with a ½ KW 60 cycle transformer should be either a 10 ohm resistance of 5 amperes capacity or an inductance consisting of approximately 150 turns of No. 14 DCC magnet wire surrounding a movable laminated core 8" long, having a cross sectional area of at least 4 square inches. For the best operation the use of both is recommended,—the inductance to adjust the note; the resistance to vary the power. If neither of these is available a water rheostat will operate satisfactorily.

Comprehensive tests have shown that, at equal input, a transmitter equipped with an "Amrad" Quenched Gap will supply any antenna with three and one-half times more energy, conforming to the present radio laws, than a similar set equipped with a rotary gap.

Your Government Inspector will strongly favor the use of this Quenched Gap.

For amateurs who do not wish to make their own resistances and reactances, we have variable units of standard characteristics for this use.

The "Amrad" Quenched Gap does NOT necessitate the use of a 500-cycle generator

---

Ever wonder how a quench gap spark transmitter worked? The above writeup tells the story. Cliff Daykin, W2AFE, is currently building such a transmitter using an AMRAD gap. Members visiting the museum this summer will have an opportunity to see it in operation (minus the antenna!)
At first glance, many collectors immediately recognize the Radiola 20 as one of the early RCA Superhets such as the "25" or "28" because in appearance there is a similarity -- sloping panel and drum dials. But as the circuit indicates, it is a TRF set with a regenerative detector. Equally difficult to find is a later RCA Model "16" which used [5] 201-A's and a UX-112. The "16" incidentally, is interesting because its cabinet styling is one of the first in modern design.

Radiola 20 is a tuned radio-frequency receiver with regeneration, employing four Radiotron UX-199's and one Radiotron UX-120. It consists of two stages of balanced tuned radio-frequency, a regenerative detector and two stages of audio frequency amplification. Many new developments conducive to sensitivity, selectivity, efficiency and quality have been combined in this Radiola. Large loudspeaker volume without distortion is made possible by use of the new dry battery operated power amplifier, Radiotron UX-120 in the last audio stage.

To facilitate the tuning and operation of Radiola 20, the three main straight line frequency tuning condensers have been mechanically coupled together and adjusted in phase so that they are operated by one control drum. Two auxiliary vernier condensers have been included to permit very fine tuning adjustments.

To have the amount of regeneration under full control at all wave-lengths, the inter-element tube capacities have been compensated for by the small neutralizing condensers located on the back of the Radiotron shelf.

The operation of Radiola 20 and the function of the various elements may be easily understood by reference to the schematic diagram shown in Fig. 1.
FIN STEWART, FAULCONBRIDGE, N.S.W. AUSTRALIA

Pictured is Fin in a corner of his large museum, believed to be the largest in the southern hemisphere. Although his speciality is early tubes and lamps, he does have a fine collection of broadcast receivers and related equipment. Fin is not a stranger in the States having visited America several years ago which included a stop-over in Holcomb, N.Y. Planning a trip to Australia? -- if so, stop and see him. Faulconbridge is near Sidney.

MUSEUM SUPPLIES

Directors and suppliers of museums are advised to obtain a copy of Highsmith’s latest museum supply catalog. The company is one of the nation’s largest retailers and carries a complete line, i.e.: showcases, files, audio-visual equipment, library needs, paper material, racks, furniture, files, etc.

AWA recently ordered the following items: an electric pen used to mark letters or numbers on book covers and an Accession book to catalog a library.

The Association also purchased adhesive letters and a box of Superstick labels. The latter were placed on vacuum tubes (Tube Inventory) and will not come off. In fact, one became wrapped around my index finger and I had a devil of a time getting it off!

We believe the catalog is sent only to organizations making a request on a proper letterhead and a minimum order is necessary:

Address: THE HIGHSMITH CO.
Box 25
Ft. Atkinson, Wisc.
53538
HISTORICAL EXHIBIT
1933 World's Fair

In the Amateur Radio Exhibit one may find a rather interesting display of historical radio apparatus, some even dating back to the beginning days of "Wireless." Following is a brief description of the various pieces of apparatus displayed:

First high frequency receiver used by the U. S. Navy when fleet made cruise to Australia and the South Seas. Communication carried on largely with aid of amateur radio. Loaned by Lieut. Cmdr. F. H. Schnell, N.R.R.L. W9UZ.


Duplicate of portable receiver and transmitter used on Byrd Antarctic Expedition. For use with dog sledges in establishing temporary bases and also on the flight over the pole. Loaned by Operadio.

DeForest audion detector unit, one of the first tube receivers. Loaned by Ens. F. L. Schoenwolf, W9AO.

Complete 1/4 K.W. panel spark transmitter used until 1923. Spark sets have been replaced by tube transmitters because of their greater efficiency.

Electrotytic detector unit, one of the first pieces of radio equipment used by U. S. Navy. Loaned by Navy Department.

Ultradion detector unit. Loaned by Navy Department.

Radio compass receiver. Loaned by Navy Department.

Very interesting tube display showing development of the receiving tube from the Fleming Valve down to the present day many element type. Loaned by H. Buckley ex W9BB.

Loose coupler tuner considered in 1920 a vast improvement over the older slide type tuning coil.

Radio receiver built on an ordinary pin, perhaps the smallest set in the world. Loaned by Rufus Turner W9FZN.

Cylindrical record type of phonograph, on display to depict the improvement of sound reproduction apparatus.

File of QST's from 1920 for reference use.

Miscellaneous: Leyden jar (Marconi) fixed spark gap, Tesla coil, developing very high voltage, Grebe CR9 receiver, various odd type radio tubes used by amateurs during last eighteen years.
CROSLEY AGAIN

A not-so-funny thing happened to a lot of wholesale appliance distributors last year.

Take the Gray-Breeze Co., Indianapolis wholesale distributor of refrigerators, freezers, washing machines and the like.

Last year the Philco-Ford appliance marketing business was phased out, with the Connersville, Ind., plant switching out of refrigerators and into automotive supplies for the parent company, Ford Motor.

Fifty or more wholesale firms around the country that had carried the Philco line needed help, in fact they needed a brand name to replace Philco merchandise.

Taking on, say Frigidaire from General Motors would mean having to take on the entire Frigidaire line of appliances — that’s usually the way it is in wholesaling. Gray-Breeze had lines of appliances it liked and did not want another major firm to supply a general assortment of appliances.

What to do to replace the Philco line?

The distributors of Philco goods banded together, found that the name Crosley no longer was owned by anyone, and acquired rights to that name.

Crosley rings a bell with a lot of people. It was an old Cincinnati company in the 1920s, marketing a wide range of consumer products such as radios and radio equipment, refrigerators. Crosley was acquired by Avco Manufacturing Co., also of Cincinnati, in 1945. Eleven years later — in 1956 — Avco phased out its home appliance business. Oddly, the Avco Bendix division was then sold to Philco but the Crosley name went to no one. Philco later was acquired by Ford.

Once the appliance distributors acquired the Crosley name, which happened only months ago, the next action was to find manufacturers under that name.

W. T. Graham International’s Admiral division will make the Crosley refrigerator for the so or so wholesalers like Gray-Breeze. Revo will make the freezers in its plant at West Columbia, S.C.; Hardwick of Cleveland, Tenn., will make the kitchen ranges, and McGraw-Edison the air-conditioners. The new Crosley distributor group believes it can compete with the likes of (Whirlpool) Sears, Roebuck line. Gray-Breeze is now lining up retailers to handle the Crosley-named products. Service and parts will be handled by that firm or by the retailers.

A.W.A. members may be interested in a brief history of an amateur receiver that was designed by RCA and is still in use after 35-plus years, Ed Bradnick W2BAY/W2BBK, and Formerly Manager, Amateur Radio Section, Engineering Products Division, Canden, provided us with the above material for an interesting story.

RCA Model AR-88 — A Classic in Radio Design

It is unusual that an electronic equipment design weathered the technological advances over a period of 35 years and is still found suitable for use by an exacting group of radio operators. This situation exists today for the Model AR-88 Communication Receiver in the operations of RCA Marine Radio Station WCC on Cape Cod, Mass. Here, these receivers are in daily use for world-wide ship-to-shore message handling. Other RCA shore stations, such as WSC, Tuckerton, N.J., also use them.

The initial concept of the AR-88 design was to provide a deluxe model to be sold by the RCA Amateur Radio Section as a sequel to a prior model (AR-77) in the amateur equipment market of 1939-1940. The AR-88 was designed as a general purpose 6-band communications receiver, covering frequencies of 535 kHz to 32 MHz.

The electrical design of this receiver was done by Lester T. Fowler and the mechanical design by George Blaker, both of whom are now retired.

However, before the AR-88 reached the production stage, the outbreak of World War II created an export market, particularly to Great Britain, that was going to greatly overshadow the dwindling domestic amateur market. (Amateur operation was not permitted during World War II, curtailing the equipment sources for amateur stations.)

To meet this changing market demand, organization of the AR-88’s production and sale was taken over by Export Sales, under the late Charles W. Roberts, at the Camden offices. Large numbers of the units were produced in the RCA plants in Camden; Bloomington, Indiana; Montreal, Canada; and in the Grispy-Grucow plant in Chicago, Ill. Most of these receivers were procured by Great Britain and used at many places, including the Battle for Britain. Russia also used the receivers.

During that time, when RCA’s short-wave shore facilities were being expanded, many AR-88’s were installed to meet the increase in message traffic. These receivers have been kept in use up to the present time as shown by the accompanying photographs.

One of the problems in keeping a receiver in service 24 hours daily for 7 days each week over the years has been the availability of replacement parts. Fortunately, components were found in military supply depots set up during World War II in Tangiers, Africa, and in San Juan, Puerto Rico, preventing many of these venerable AR-80’s from being retired from service.

After World War II, many of these receivers were sold in surplus markets where they were purchased by radio amateurs and are still in use.

Copy from Ed Taylor
THE
MUSEUM

A.W.A. HISTORICAL MUSEUM
ACADEMY MUSEUM
East Bloomfield, N.Y.

Museum Hours:
Sunday —— 2 to 5 P.M.
Wednesday —— 7 to 9 P.M.
May through October
Open to groups by appointment
Tele. (716) 657-7489
Free Admission
Museum Telephone:
(716) 657-6260

New Equipment
in A.W.A. MUSEUM
EQUIPMENT: W2PZH, WB2FPT, WROC,
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BOOKS & SOFTWARE: WIPQ, Perry
Ferrell, J. Graham, WB2FPT

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The machine gives a bold print
which makes it easier to read, par-
ticularly after print reduction. As
a start, we're going to run the Old
Time Ads in three columns by re-
ducing type size (not contents of ad).

MUSEUM
PHOTOGRAPHS
For sale: 40 beautiful Kodachrome slides of the AWA Radio
Museum showing the various
rooms and equipment. Available
with Tape Cassette description
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MUSEUM OF
BROADCASTING
The Museum of Broadcasting at 1
East 53rd Street in New York City
is designed to preserve and exhibit
each area of programming in Broad-
casting since the 1920's and on into
the future.
The Museum has an initial capac-
ity for 20,000 programs; television
broadcasts are on 1/2-inch tape cas-
settes for exhibition (master copies
are 3/4-inch tape in fire-proof stor-
age).
Radio broadcasts are on 1/4-inch
open reels in storage. All programs
are indexed in card-catalogue by
title, subject, date, director, pro-
ducer, writer, cast and technical
credit. The average broadcast is
listed under a dozen DIFFERENT
index headings in the card catalog.
Visitors to the Museum watch or
listen to programs in the Study
Center, consisting of eight consoles
equipped with both video and audio
cassette playback decks. Each con-
sole has three sets of headphones;
twenty-four people can use the Study
Center facilities at one time.
All cassettes are locked into into
the equipment by the Museum tech-
nician. Robert Saudek is President
and Mary Ahern is Curator. The
telephone number is: 212-752-4690
(Info from Rod Phillips, WA3ABC)

New Museum
MUSEUM OF ELECTRICITY IN LIFE
is a new museum in Minneapolis at the
Midtronic Company, a manufacturer of
pacemakers and other electronic medi-
cal devices. The museum has 350 arti-
facts and a 6000 volume library. It
is opened to qualified researchers by
appointment.