WHO TO WRITE TO:  (Write legibly. Enclose S.A.S.E. for prompt reply)

Charles Brelsford (President)  255 Danbury Circle So., Rochester N.Y. 14618
All official business, Conference and meeting activities (Tel. 716-244-9519)

Kenneth Gardner (Vice-Pres.)  42 Oakdale Ave., So., New Hartford, N.Y. 13413
Official business, Amateur activities, Net Lists

Richard Ransley (Secretary)  9 Belden Ave., Sodus, N.Y. 14551
Meeting notices, business reports, membership applications

Lincoln Cundall (Treasurer)  69 Boulevard Parkway, Rochester, N.Y. 14612
Address changes, new membership applications, dues (Tel. 716-663-0856)

Bruce Kelley, Main St., Holcomb, N.Y. 14469 (Tele. 716-657-7489)
All material for AWA Bulletin.

Clifford Daykin, 19 Oxford Place, Geneva, N.Y. 14456
Museum activity and maintenance

Lauren Peckham, Ormiston Road, Breesport, N.Y. 14816 (Tel. 607-739-5443)
All material for Vacuum Tube Newsletter. All queries relative to tubes.

Dexter Deelely, 8 Briar Circle, Rochester, N.Y. 14618
Bulletin mailing and back issues

Al Crum, 16 Costar St., Rochester, N.Y. 14608
A.W.A. Museum slide/tape shows, Museum photographs
Bruce Roloso, 701 Grand Central Ave., Horseheads, N.Y. 14845
Electrical equipment and light bulbs

Robert Morris, Sunset Lake Rd., RFD#1, Sparta, N.J. 07871
Huck Award Chairman and associated activities

REMINDER! Dues and address changes to Treasurer, NOT the Secretary.
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COMING EVENTS

ANTIQUE WIRELESS ASSOCIATION

NEW ENGLAND - New England Wireless Museum, East Greenwich, R.I. Saturday, AUG. 11

INDIANA - Joint AWA/1HRS Meet, Saturday, APR. 21, Auburn, Ind.

CALIFORNIA - Joint AWA/CHRIS Meet
Saturday, MAY 5, Foothill College, Los Gatos, Calif.

NEW YORK - Annual Spring Meet
Saturday, MAY 12, East Bloomfield, N.Y.

SOUTH-EAST, Charlotte, N.C.
June (date to be decided)
All dates are tentative and subject to change. Full information in March

New Equipment

in A.W.A. Museum

Gneseeo SUNY, Paul Feldman, Herb
Morgan, Richard Cane, RCA, W2PZH,
W2ABD, W2FHR, W2OZR, Herb Hovenden,
W3CJN

NEW MEMBERS

who are or have been associated
with communication or electronics.

Lester Whitehead- AAIAB, NBC and
Press Wireless

Carl Herr- W3TT, Naval operation:
NBD, NAM, NAW, NUKO,

Steven Stipkovits- ZL2TGC (New Zealand)
Radio & Tele-communication

Bud Hall- K2LP, Laboratory Super.
Electronic Technology, Co. College

Fred Shumanam- ex-XU8WG, HPFQ,
HPFJ, VE4AA, Gernsback Pub.

Pat O'Hern, c/o ARAMCO
Dhahran, Saudi Arabia

Ed Reiter- 1.T.T. Gilfillan

FAREWELL PARTY

A group of officers and members
attended a farewell party recently
for long-time AWA Board Member
Joe Marsey, N2JMM and his wife
Betty. Since retirement, they have
spent several winters on the sunny
beaches of 4X4-land and finally
decided to move there permanently.
An ardent AWA supporter and work-
er, Joe will be greatly missed.

SILENT KEYS

E.U. SNYDER, W8CQI Springfield,
Ohio

LARRY TRIGGS, W2YBK, Fairport,
N.Y.

ROBERT HARRISS, Danville, Calif.

LARRY LE KASHMAN, W210P
Granger, Ind. (and L.L.)
Laurence Triggs Dies; Was Kodak Ad Executive

Laurence Triggs, retired director of advertising copy at Eastman Kodak Co., died Tuesday (Sept. 5, 1979) at Genesee Hospital after a short illness. He was 78 and lived at 46 Bittersweet Road, Fairport.

Mr. Triggs worked in advertising for 37 years. He joined Kodak in 1953 as manager for creative planning in the advertising department.

He was director of advertising copy from 1956 until he retired in 1960.

From 1929 to 1953, Mr. Triggs was copy director for the Charles Daniel Frey Co., a Chicago advertising company. As part of that work in the early 1930s, he directed a radio program featuring poet Edgar Guest.

A graduate of the University of Illinois, Mr. Triggs was telegraph editor of the Indianapolis Times from 1923 to 1925 and foreign news editor for the Chicago Tribune from 1927 to 1929. In between, he taught English at the University of Illinois and earned his master’s degree.

He was a member of Sigma Delta Chi and Kappa Delta Rho fraternities.

Mr. Triggs was also an amateur radio operator. He belonged to the Antique Wireless Association, the Amateur Radio Relay League, the Rochester Radio Association and the Optical Society of America.

With great sadness we announce the passing of AWA Director Laurence Triggs, W2YBK. Larry was one of the team (with Bruce Kel¬ley) who edited our Journal for the past 18 years. He was the author of numerous articles as well as several AWA brochures. AWA will miss this dedicated mem¬ber. (C. Z.)

IMPORTANT!

One of the largest amateur Net Meetings was held at the recent Conference with members present from 9 districts. In addition to discussing the forthcoming OT Transmitting Contest, members felt a need to change the regular Net hours on Sunday and Tuesday. Starting Sunday, Oct. 29, the following times have been in effect:

SUNDAY: 9:30 A.M. EST (instead of 12 noon) 3903 kHz.

TUESDAY: 5:30 P.M. EST (instead of 2 P.M.) 14270 kHz.

Ken Gardner, W2BGN
Chairman

ANTIQUE RADIO TOPICS
TO CEASE PUBLICATION

It is with regret we learn that Jim Fred has decided to phase out his friendly and informative publication for the radio collector.

This has been a one-man endeavor since its inception in 1970. The many man-hours of work with a subscription of only 300 is not always a rewarding task if the price is kept within reason.

With present-day mailing and print costs this is hard to do.......

PRESS WIRELESS


John went into great detail describing the British transatlantic (and world-wide) network which had several high power HF as well as VLF stations in the 1930’s. A most interesting letter worthy of printing in the OTE.

ARMSTRONG’S HOME

Now a registered landmark

Members who have read “Man of Hi-Fidelity” or have seen the AWA Armstrong show are familiar with Armstrong’s boyhood home in Yonkers, New York.

Located at 1032 Warburton Ave., it was the scene of Maj. Armstrong’s early radio activities. It was here in a large cupola tower the inventor made his initial experiments with the feedback circuit.

This past summer the house was designated a Registered Yonkers Landmark. This is good news for all radio historians, particularly Armstrong buffs.

[Jack Troster, W6ISQ]
HUGE SUCCESS!

-- 455 registered by Friday noon with total attendance nearly 600, all the way from Nova Scotia to British Columbia and Florida to California!!
-- 4 beautiful sunny days for the huge flea market....
-- De Neuf and Peckham Houck Award recipients...
-- top programming of professional caliber...
-- outstanding equipment exhibit...
-- auction largest ever with many surprises (to be reviewed with comments in March OTB.)
-- tube auction sales over $2000.
-- Dex Deeley is given Conference Award
-- John Caperton has best receiver.
-- women win rousing cheer on return from (broken) bus trip!
-- big thanks to Fred Hammond for his generosity.

Bro. Patrick Dowd, W2SK, gave an excellent talk on vacuum tube development.

Lauren Peckham displays his Houck Award as son David looks on.

Much credit for another outstanding conference goes to Chuck Brelsford and Linc Cundall who again handled all arrangements. Equally important, was the tremendous work performed by the auction and contest committees. Members of these groups (and their wives) had little time to enjoy the fine programs or wander through the huge flea market.

-- and do you know what...there were still a few members who resented paying the $4 registration fee. They felt the private parking lot and meeting room was public domain. How cheap can one get? --BK

--------------- OTB / MONOGRAPH ------------

Yes, the September Bulletin was late for our printer was knee-deep in work. In addition, we had to postpone sending the Monograph scheduled for the same mailing. Sorry about this.

Much material has been received at AWA for OTB publication. In fact, there is enough back copy for the next several issues. Bear with us--it will eventually be in print.
CONFERECE ACTIVITY

THE EVER POPULAR FLEA MARKET

THE LADIES PREPARE FOR THEIR FALL BUS TRIP

W7AHK and W7JY from Seattle

An attentive audience
HOUCK AWARD

DE NEUF & PECKHAM

Don deNeuf (Southbury, Conn.) and Lauren Peckham (Breesport, N. Y.) were the recipients of the coveted Houck Awards at the recent AWA National Conference.

MR. DE NEUF is recipient of the Houck Award for outstanding Documentation. A most knowledgeable and prolific writer, he regularly appears in countless historical journals, magazines and professional publications covering the entire field of electronic communication. His span of interest ranges from early Morse work to satellite communication.

MR. PECKHAM has saved countless thousands of historical artifacts that would have been lost without his energy and willingness to preserve history. As an example, he volunteered to construct an addition to his building to preserve 2000 historical volumes from RCA which would have been otherwise discarded. His un-tiring willingness to catalog and save rare vacuum tubes will benefit future generations.

CONFERENCE AWARD

DEX DEELEY

If ever a person deserved recognition for outstanding work and devotion to a cause, it is our Comptroller, Dex Deeley. He has carried full financial responsibility for AWA Conferences for the past several years. He is the one who handles your registration and money. A greater burden, however, is the handling of books and finance for the Auction... a tremendous task!
CRRYSTAL RECEIVERS
1st- Alan Douglas...SC-14A
2nd- Charles Barone..Federal Jr.
3rd- John Drake..Murdock longwave

REGENERATIVE RECEIVERS
1st- Burt Noyes..Sterling 2 tube
1st Jr.- Felecia Krauzer..Kennedy 311
2nd- Will Jenseby
3rd- Everett Berry..Ind. Radiodisc..Uske 222

SUPER-HETERODYNES
1st- James Krauzer..Norden-Hauck C-10
2nd- John Caperton..Super Fanway
3rd- Floyd Engels..Radiola 30

TUNED RF RECEIVERS
1st- Glenn Streeter..Priess
1st Jr.- Bruce Tease..Ak-55
2nd- F.W. Sloat..Metro-lys..Magrane
3rd- Jon Nelson..Ak-21

ALL OTHER RECEIVERS
1st- Lauren Peckham..Freed-Eiseman
1st Jr.- Dick Schenberger..Fed. 57
2nd- Ed Taylor..Home Crystal
3rd- Tim Martin..Conn. Tel. Sodion

OLDEST BROADCAST STATION
by Joseph Baudino and John Kittross
["Journal of Broadcasting", Winter, 1977]

This old chestnut has been pulled out of the fire and tossed around so many times I vowed I would never bring up the subject again...but here it is.

To make their decision, the authors got down to business and tore apart all arguments and facts presented by the leading four contestants. They did this by first setting up a set of rules. The contestants:

KDKA (Pittsburgh), KQW (San Jose), later KCBS San Francisco, WHO at Madison, Wisc. and WWJ (Detroit). All others weren't worthy of discussion.

TRANSMITTERS and equipment
1st- Glenn Streeter..DeForest OT-5
2nd- Don Patterson..Homebrew spark
3rd- Will Jenseby..5 watt spark
Hon. Ment.- Joe F. Pawek..Alexanderson alternator

EQUIPMENT PRIOR TO WWI
1st- John Caperton..Marconi
1st Jr.- Charles Barone..Morse Register
2nd- Lauren Peckham..Newton 10" coil
3rd- Wilson Norwood..Audion PN-68

WWI RECEIVERS
1st- Ralph Muckow..Marconi 101
2nd- Dick Brewster..CN-115
3rd- Alan Douglas..SE-143

WWI TRANSMITTERS
1st- Joe Pawek..Air Communications
2nd- Ralph Muckow..Great Lakes arc
3rd- Peter de Angelo..French port.

WWI MISC. EQUIPMENT
1st- Lauren Peckham..Audion Box
2nd- Ralph Muckow..Kol. decimeter
3rd- Peter de Angelo..mechanical amplifier

Hon. Ment.- Lauren Peckham..Tube display

BEST IN SHOW
John Caperton..rare French receiver used at WWI trans-Atlantic receiving station NB1, Otter Cliffs

Ralph Williams and his staff are again to be congratulated for an outstanding job of judging.

SHOW and TELL WINNERS
Again Mel Comer's part of the Conference Program paid off with rich dividends for the collector interested in restoring equipment. The following were awarded prizes for their outstanding presentations:
1. FLOYD ENGLES with his fine display of knobs, etc.
2. LOUIS LINDAUFER for his talk on refinishing.
3. DICK RANSLEY for his slide presentation and information on plating.

Who is the winner? KDKA of course.
If you wish to argue the point, you're in for a rough time, for your adversaries are real pros who know their business....enuf sed.
FROM HEADQUARTERS

CLOSE-UP

RISING COSTS

I read with interest the need for various clubs to increase their dues. Reason: rise in printing costs and U.S. postage rates.

So far, AWA has been lucky to hold the line with no immediate plans in the future to increase dues. The Association will, however, drop a member immediately who is delinquent. Why not pay two years in advance instead of one?

TUBE COLLECTION TO SCHOOL

Just received a copy of a letter from the President of Manhattan College (Riverdale, N.Y.) acknowledging a proposed gift to the school from Bro. Patrick Dowd, W2GK.

In time, Pat plans to donate his entire collection to his alma mater. This is a worthy gesture and in turn will place one of the largest historical tube collections in the world in safekeeping. May we again remind members to start thinking about the final disposition of their equipment...you're not going to be around forever...and it is best to make plans now and not leave it up to the executor of your estate.

HISTORY OF PHILLIPS

A lengthy letter from Fin Stewart (Australia) tells of acquiring 19 early European vacuum tubes plus two rare light bulbs: a blue glass Osram and a green glass Phillips lamp. Fin just completed writing the history of the Phillips Company. (Cont. on page 17)

OLD TIME TRANSMITTER CONTEST

OBJECTIVE: QSO the greatest number of AWA members. When calling, use: "AWA AWA AWA de W2AN" as an example. On contact, exchange year of equipment such as 1936 transmitter would be "TX 36" and a 1930 receiver would be "RX 30".

Thurs., Jan. 25, 2300 Z to Fri., Jan 26, 2300 Z.

FREQUENCIES: 3580 to 3590 Kh. and 7040 and 14084 Kh. plus or minus QRM. Concentrate 20 and 40 QSO's on the hour.

SCORING POINTS:
1 for qso with 1940 or later station.
2 " " " 1939 or earlier TX or RX
3 " " " 1939 or earlier BOTH TX and RX.

POINT MULTIPLIERS:
2 for stat. using 1939 TX or earlier.
2 for stat. using 1939 RX or earlier.
4 for stat. using 1939 or earlier BOTH TX and RX.

RULES: A station will be scored only once on each band. No crossband contacts. Non-member contacts will not count. Stations not submitting logs will not count.

SEND LOG COPIES TO:
Ken Gardner, W2BGN
42 Oakdale Ave., S.
New Hartford, N.Y. 13413

BEFORE March 1st, 1979

AWA NETS

PHONE (99B)

Sunday -- 9:30 A.M. 3803 Kh.
Tuesday -- 8 P.M. 3866 Kh.
Monday -- Wednesday -- Friday
9:30 A.M. 3666 Kh.
Tuesday -- 5:30 P.M.
14270 Kh.

CW. (Code)
3584 Kh.
FIRST Wednesday of each month
8 P.M.
Daily -- 4 P.M.

Note: Frequencies are subject to plus minus 3 kc. to avoid QRM and are EST (or EDST).
Back around 1922 there were few radio dealers in the small town and rural areas, so I started building and selling radio sets while still in High School. Farmers were especially good radio prospects because they were interested in weather and market reports as well as the music. I could furnish whatever price set the customer wanted, be it one, two or three tubes. They were all regenerative and fortunately Major Armstrong never heard of me, or he would have put me out of business! My installations helped gain a fine reputation since I insisted on a good antenna and ground which were of great importance for best reception in those days.

By graduation time I had designed the 4 tube TRF set which I called Model N-4. (Figure 1) It was a compact set having one stage TRF, detector and two AF. The only N-4 now known to exist took First Place in the TRF division at Canandaigua in 1926. By this time my good friend and classmate, the late Lynn Garber, joined in helping me with the business which became the Y. M. HOAG MFG. CO.

We built the N-4's in a back room of my parents' large farm house where I had been building the earlier small sets. Lynn's father ran a "wagon shop" in Vernon, which at one time had been a carriage manufacturing business, but was now devoted to building special farm vehicles to order and general repair work. Upstairs was a quantity of Philippine mahogany and red birch lumber, which Lynn's father declared surplus. I bought it all for something like ten dollars. The shop was equipped with all kinds of woodworking machinery and Lynn and I built most of the N-4 cabinets there.

I bought hard rubber and bakelite panels all engraved to my drawings, so we only had to drill them. We had a fellow help with assembling, but Lynn and I did all the wiring, soldering and testing. By this time we had set up a number of dealers who were doing quite well and there was repeat business from old ones and two-tube set customers.
who wanted to step up to four tubes. Altogether, we sold close to 200 of the N-4 sets, during 1924 and early 1925. These sold for $85 "bare"—without tubes or batteries and up around $200 complete with tubes, batteries and horn.

Meantime, I was designing Model N-5 (Figure 2), one of which can be seen in the AWA Museum at East Bloomfield. This is the only one I have ever been able to find. By this time we had outgrown the back room and needed more space, so we moved into a building near the railroad station which had formerly been the office of the defunct Geo. D. Pohl Mfg. Co., makers of gasoline engines.

About this time I registered the name "BLITZADYNE", but the more I thought about it, I didn't like it, so we never used that name on a product. However, the name does appear in a listing of early radio manufacturers. Model N-5 was originally to have been five tubes with 2 RF, detector and 2 AF. The N designation referred to the Number of tubes, hence N-4 and N-5. About this time we decided to change to resistance coupled audio, which added a tube and made it a six tube set, but as the engraved panels were already on hand, the model remained N-5. Also, about now the business became the HOAG RADIO CORPORATION.

Meantime, the Aerodyne Radio Corporation of Utica went out of business and the Ferrara Talking Machine Com-

(Continued on next page)
A new artifact in the A.W.A. Museum is Hiram Percy Maxim's personal key. The key was presented to the Association by former ARRL Museum Curator and Technical Staff member Lew McCoy, W1ICP, at the New York State A.R.R.L. Convention banquet in Rochester.

The key has a lengthy history. It was purchased and used by Maxim before World War I to key his spark transmitter. Following the war, he gave it much use with his famous IAW CW transmitter.

Sometime in the early 30's, Maxim gave the key to his life-long friend and AWA member Roland Bourne, W1ANA. Just before his death in 1972, Roland gave it to his close associate Lew McCoy.

This key has great historical significance to the amateur fraternity since Hiram Percy Maxim was co-founder of the A.R.R.L. and is known as the "Father of Amateur Radio".

Through his efforts amateur radio gained solidarity and strength. Maxim became a Silent Key in 1936, and his personal call W1AW has since become the official call of the A.R.R.L.

Like most early high power keys, it is mounted on a marble base and has large heavy contacts. It was customary in those days to key the high voltage transformer primary. If you ran a kilowatt, you keyed it directly from the 100 volt A.C. line without the benefit of a relay! Many an early ham received a nasty shock when he carelessly allowed his hand to cross the key.

Visitors to the A.W.A. Museum can see a wide variety of high power keys on exhibit including one with air-cooling fins once used to key a 5-kilowatt spark transmitter on a WWI U.S. Navy vessel. AWA is deeply indebted to Lew for this very historical artifact. Tks OM.

THE ANSWER

On page 13 of the last OTB the question came up as to the meaning of the letters T-P-S on a WWI transmitter. Clarence Tuska may have the answer.

According to Clarence, when the U.S. entered the war there was a tendency to copy radio gear of British and French origin because of their experience. He recalls an experience with a similar piece of equipment and is inclined to believe it is of French origin since the set used the earth for transmission. T-P-S in French would be: "Telegraphie Par Sol" and translated would be "Telegraphy Through the Soil" or T-P-S. If you recall, the set used two ground rods instead of an antenna...
the directory on the next page is an attempt to list every vacuum tube radio receiver built that could tune within the VLF band of 3 kHz to 30 kHz or ELF band of 3 Hz to 3 kHz. Radio began in the longwave spectrum and the importance of these remarkable sets for military defense, RFI studies and scientific research cannot be overestimated.

For years, many longwave receivers were state-of-the-art military secrets; consequently, information about them is difficult to obtain. Not included in this list are fixed-channel sets, untuned SPERIC direction finders and low-sensitivity tunable voltimeters.

Corrections or additions are welcome. Write: H. Layer, Audio-Video Center, San Francisco State Univ., 1600 Holloway Ave., San Francisco, Calif. 94132

Notes:
1. The earliest date that I could find or guess is listed. If a receiver had minor changes identified by a model number change, only the first is listed. For example, the 1945 RAK-7 looks identical to the 1935 RAK, but was built by Andrea Radio with newer tubes. However, the RO and RO-2 are quite different.

2. The selectivity of early VLF receivers was often improved by an audio bandpass filter. Its resonance frequency is listed when known. The selectivity of later receivers is indicated by their narrowest specified bandwidth.

3. Tubes are listed as follows: 33-4/4-1 means the sets has 33 tubes and 4 diodes in its RF and AF circuits and has 4 tubes and 1 diode in its power supply.

4. AC means the receiver has a built-in AC power supply. AC means separate AC power supply unit was available. B means battery power, DC means DC power.

[All copy relative to this report is copyrighted.]
<table>
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<tr>
<th>DATE</th>
<th>MODEL</th>
<th>MAKE</th>
<th>TUNING</th>
<th>SELECTIVITY</th>
<th>WEIGHT</th>
<th>TUBES</th>
<th>POWER</th>
<th>FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1918</td>
<td>SE-1617</td>
<td>18k-43k</td>
<td>18k-43k</td>
<td>6</td>
<td>TRF; 3 RF stages; reg. det.; 2 AF stages.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1920</td>
<td>1P-501 &amp; IP-501A</td>
<td>Western Electric, North American, or AFRAD</td>
<td>15k-1.2M</td>
<td>3</td>
<td>TRF; requires IP-501 long-wave loading unit for 15-31.5kHz range; 2 AF stages.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1921</td>
<td>RA</td>
<td>16k-1.2M</td>
<td>16k-1.2M</td>
<td>27</td>
<td>TRF; submarine use.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1921</td>
<td>RS</td>
<td>10k-50k</td>
<td>10k-50k</td>
<td>1</td>
<td>TRF; requires SE-1530 receiver unit.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1922</td>
<td>110 (Universal)</td>
<td>Kennedy</td>
<td>12k-1.7M</td>
<td>6</td>
<td>TRF; requires SE-1814 RF amp. with 3 peanut-tube stages; reg. det.; 2 AF stages.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1922</td>
<td>RD</td>
<td>12k-1.2M</td>
<td>12k-1.2M</td>
<td>4</td>
<td>TRF; 1 RF stage; reg. det.; 2 AF stages.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1925</td>
<td>RE</td>
<td>10k-100k</td>
<td>10k-100k</td>
<td>5</td>
<td>TRF; 3 RF stages; reg. det.; plug-in coils.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1925</td>
<td>SE-2300</td>
<td>10k-1.2M</td>
<td>10k-1.2M</td>
<td>B/AC</td>
<td>TRF; HF twin is 3356.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1926</td>
<td>RE</td>
<td>12k-375k</td>
<td>12k-375k</td>
<td>6</td>
<td>TRF; HF stages; heterodyne det. below 45kHz; autodyne det. above; plug-in coils, HF twin.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1929</td>
<td>EQ (CAY-3355)</td>
<td>Westinghouse</td>
<td>15k-1.0M</td>
<td>100</td>
<td>TRF; 4 RF stages; reg. det.; plug-in coils, HF twin is 3354.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1930</td>
<td>EQ (CC-3362)</td>
<td>GE</td>
<td>15k-1.0M</td>
<td>7</td>
<td>TRF; HF twin is 3375.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1930</td>
<td>EQ-2 (CAY-3946)</td>
<td>Westinghouse</td>
<td>15k-1.0M</td>
<td>7</td>
<td>TRF; HF twin is 3949.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1931</td>
<td>RAA</td>
<td>RCA</td>
<td>10k-1.0M</td>
<td>465</td>
<td>TRF; 3 RF stages; heterodyne det.; 2 AF stages; requires SE-4511 RF amp/det. unit.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1932</td>
<td>RAC</td>
<td>NEL</td>
<td>12k-80k</td>
<td>7</td>
<td>TRF; plug-in coils.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1933</td>
<td>REK</td>
<td>Westinghouse</td>
<td>15k-1.0M</td>
<td>7</td>
<td>TRF; HF stages; heterodyne det.; HF twin is R-1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1933</td>
<td>RAG (CHS-46062)</td>
<td>Sylvania</td>
<td>15k-60k</td>
<td>93</td>
<td>TRF; 3 RF stages; heterodyne det.; variable AVC; HF twin is R-1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1935</td>
<td>AR-8500</td>
<td>RCA</td>
<td>15k-1.7M</td>
<td>116</td>
<td>TRF; HF stages; autodyne det.; variable AVC; HF twin is R-1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1938</td>
<td>CES</td>
<td>Bendix</td>
<td>15k-1.5M</td>
<td>37</td>
<td>Superhet; direction finder; 1 RF stage; 2 IF stages; BFO; does not tune 70 kc-140 kHz range.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1939</td>
<td>DZ (Ampex)</td>
<td>RCA</td>
<td>15k-1.5M</td>
<td>20</td>
<td>TRF; HF twin is R-900.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1939</td>
<td>RAS (AR-8500)</td>
<td>NEMA</td>
<td>15k-60k</td>
<td>94</td>
<td>TRF; HF stages; heterodyne detector; HF twin is R-900.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1940</td>
<td>117B</td>
<td>Mackay</td>
<td>16k-20M</td>
<td>51</td>
<td>TRF; HF stages; heterodyne detector; HF twin is R-900.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1940</td>
<td>128HY (R-212/58)</td>
<td>Federal</td>
<td>15k-650k</td>
<td>43</td>
<td>TRF; HF stages; heterodyne detector; HF twin is R-900.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1940</td>
<td>BBA</td>
<td>Federal</td>
<td>15k-600k</td>
<td>147</td>
<td>TRF; HF stages; heterodyne detector; HF twin is R-900.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1941</td>
<td>RBL</td>
<td>National</td>
<td>15k-600k</td>
<td>75</td>
<td>TRF; HF stages; heterodyne detector; HF twin is R-900.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1942</td>
<td>AR-8510 (R-215/SB)</td>
<td>RCA</td>
<td>15k-60k</td>
<td>39</td>
<td>TRF; HF stages; heterodyne detector; HF twin is R-900.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1943</td>
<td>RG-969 (SCR-614)</td>
<td>Majestic</td>
<td>15k-150k</td>
<td>119</td>
<td>TRF; HF stages; heterodyne detector; HF twin is R-900.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1949</td>
<td>RM-10A (AUR/URM-6)</td>
<td>Stoddart</td>
<td>15k-250k</td>
<td>51</td>
<td>TRF; HF stages; heterodyne detector; HF twin is R-900.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1950</td>
<td>AR/Erd-11 (R-393)</td>
<td>RCA</td>
<td>15k-600k</td>
<td>63</td>
<td>TRF; HF stages; heterodyne detector; HF twin is R-900.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1954</td>
<td>AR/Erd-21 (R-105)</td>
<td>RCA</td>
<td>15k-600k</td>
<td>63</td>
<td>TRF; HF stages; heterodyne detector; HF twin is R-900.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1954</td>
<td>R-389/URR</td>
<td>Collins</td>
<td>15k-1.5M</td>
<td>70</td>
<td>TRF; HF stages; heterodyne detector; HF twin is R-900.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1956</td>
<td>RM-40A (AUR/URM-6)</td>
<td>Stoddart</td>
<td>30kHz-15k</td>
<td>120</td>
<td>TRF; HF stages; heterodyne detector; HF twin is R-900.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1956</td>
<td>SP-600ULF</td>
<td>Heald</td>
<td>10kHz-100k</td>
<td>70</td>
<td>TRF; HF stages; heterodyne detector; HF twin is R-900.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>AR/Erd-11 (R-983)</td>
<td>Federal (ITT)</td>
<td>14k-30k</td>
<td>75</td>
<td>TRF; HF stages; heterodyne detector; HF twin is R-900.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1961</td>
<td>HF-105/7X</td>
<td>Empire</td>
<td>14k-10Hz</td>
<td>70</td>
<td>TRF; HF stages; heterodyne detector; HF twin is R-900.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1962</td>
<td>AR/VER-3 (R-1134)</td>
<td>Magnavox</td>
<td>14k-400k</td>
<td>70</td>
<td>TRF; HF stages; heterodyne detector; HF twin is R-900.</td>
<td></td>
<td></td>
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</tr>
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INSERTED DELIBERATELY

TO ADJUST

PAGE NUMBER SEQUENCE
FILAMENT POWER SUPPLY FOR 5.0 VOLT TUBES

by Dr. J. M. Cadrecha, CO2XF and J. S. Cadrecha, ENG.

To all of us interested in minimal cost plus, most of all, top performance under adverse conditions, the circuit hereby described offers its users both qualities with minimum building time.

First of all, this unit is designed for loads of less than 2 amperes continuous DC current. It will operate from no load to full load holding its output voltage to variations of less than 0.25 volts. Ripple voltages of less than 15 millivolts are to be expected.

The key to its successful performance rests in its filter capacitor C1. It is imperative this capacitor be of a value of 8000 microfarads or larger. Any substitution for a lesser value will prove disastrous since both regulation and ripple will increase dramatically, and quickly introduced into the receiver, will cause hum. It should be pointed out this capacitor will be the largest component of the unit. Average size of a capacitor of this value will range from 2 by three to 2 and a half by four inches.

You will notice we employ four rectifiers for full wave. Do not try half wave since voltage variations will make this design not optimum. The 50 ohm resistors are used for pin network filtering and zener diode current fixing. They must be of large power rating, nine watts or more per unit. The 5 ohm resistor is used for power reduction of the transistor and for current protection in case of excessive loading. Its dissipation is high so use a 15 watt or more resistor. Do not place close to the transistor, and if possible, use a resistor that can be attached to the chassis for power dissipation enhancement. This type is commercially available.

Capacitor C2 is critical since its value times the Beta of the transistor will determine the equivalent circuit load filtering capacitance of the circuit.

As you know we elected to design this supply for a five volt output. To accomplish this we used a zener diode of 5.8 volts which is placed at the base of the NPN transistor. This diode must be of a power rating of 1 watt or more. Do not substitute for a lower power rating. In the event that you may desire a different output voltage you can use any other zener diode of less than 5.8 volts. Do not use a zener of greater than 5.8

(Continued on next page)
(Cont. from previous page)

volts since the transistor will saturate at high currents and the circuit will be nonfunctional.

The transistor is any NPN of a current rating of more than 2 amperes. It must be heatsinked to the chassis and isolated from it with a mica transistor gasket, which is easily obtained. Do not forget a pilot light. It can be either a neon with limiter resistor at the input, or a bulb of 12 volts with a reducer resistor at the output of the transformer. We do not show this in Figure 1. Design your own!

CLOSE-UP FROM HEADQUARTERS

cated in the Netherlands. More on this later.

USED TUBES FOR SALE

A large listing of used tubes for sale was recently received at AWA Headquarters. Hundreds of different types (no antiques) are available at what appears to be reasonable prices. We can’t guarantee the company or its products -- but if interested, write for their latest sales listing:

Micro Electron Tube Co., Box 55
Park Station, Paterson, N. J. 07513

MARCONI/RCA INSTITUTE

I have mentioned this school several times in earlier OTBs. their founding and the struggle to stay in business. Bob Cobaugh, W2AY, sent us an ad from a New York newspaper telling about TECHNICAL CAREER INSTITUTE Inc. (West 31st St., NYC) ... a school specializing in electronics technology. A little searching (and checking the address) indicates it is the SAME school but under different management. We wish them luck...

GOOLEY, SCOTLAND

Yardley Beers, WØ JF writes about his recent trip to Ardrossan, Scotland, the receiving site where Paul Godley pitched his tent and gear to receive the first amateur (and shortwave) signals across the Atlantic.

It wasn’t easy to find: Ardrossan is 25 miles from Glasgow and 15 miles from the Prestwick Airport on the coast road just beyond the intersect-

ion with Witches Linn.

Yardley also found Lord Kelvin’s retirement home (The Largs) 10 miles further up the coast. The Larg is also the site of a decisive battle in which the Scots ejected the Norwegians after their 400 year domination of the area. I wonder what Prince Valiant would say to this?

TUBE COLLECTOR

Harry Stavert (Marysville, Wash.) takes this month’s prize for finding radio equipment...in the most unusual place. His son is a bottle collector, and as you know, a favorite haunt for these fellows is an abandoned dump out in the country.

While carefully sifting through such an area he un-earthed a collection of early 201-As, 71-A, 26’s and even a 30 tube -- and most of them tested good!

AWA BARN MUSEUM HAS SURPRISES

On occasion, a visitor will be allowed to roam thru the second floor of the old AWA Barn Museum and storage area. Here one can see nearly 7000 tubes, ancient light bulbs, stacks of old receivers, countless thousands of early parts, partially filled showcases and other items loosely piled in dozens of boxes.

On just such a recent visit, Bro. Pat Dowd managed to work his way thru a vast assortment of tubes for his 1930 display. His trip was successful as he left with 14 little known tubes of 1932-1938 vintage -- but he also found

[Cont. on page 18]
dozens of seldom seen tubes such as a BRASS base 852 and a BAKELITE UV-202 (without tit) which had "G.E. marked on the glass envelope but with a RCA label. This tube was apparently made in the late 20's for replacement. The brass-base 852 must have been one of the first manufactured...

BIG-TIME OPERATORS

A letter from Ed Faubel tells how to become a "big-time" operator (and he doesn't mean radio operator!) It goes something like this:

"...subscribe or belong to many organizations as possible. They usually publish a beautiful list of potential victims complete with address in their "want ad" section.

...to be successful, one should use at least two different names (and addresses) in one's business. This means you have the chance of "hitting" the same victim more than once...

...fake some of the equipment, or at least part of it. If the victim doesn't realize he's taken, great! If he does, so what...you've got his money....

...advertise in national publications (where you're not known) offering "highest prices paid for old equipment." The fellow who has been around does not fall for this old game but every now and then one can hook an unsuspected widow disposing her late husband's gear."

The general tone of the letter would seem to indicate Ed may have suffered from the hands of a fellow collector(s). Too bad....

EARLY G.E./RCA DAYS

Jack Nelson writes of his early working days (in the late 20's) at General Electric where they were manufacturing Radiolas for RCA. One of his jobs was testing power supplies.

On one occasion they encountered a serious problem -- the units just were not coming up to specs. Jack pinned down the trouble -- the test set was defective -- not the power supplies! He tells us it was a sad day in late 1929 when he helped load the big Mac Cormack moving vans that hauled all the test equipment to RCA's Camden plant.

HALLICRAFTER

Members may have noticed an ad in QST Ham-ads requesting Hallicrafter receivers. The writer is AWA member Chuck Dachis, WD5EOG of Austin, Texas who is specializing in early equipment made by Hallicrafter Corporation.

Chuck has already built up what may be the largest Hallicrafter collection but finds he still has many pieces to go -- particularly in transmitters and miscellaneous items.

How about National products? A good bet here is Bill Orr, W6SAI. Did you read his illustrated article on the NC-101X in October "CQ" magazine? Other than for a little drift, it is a real hot set. We have one in the AWA Museum.

--- B. K.
Reference to the SODION tube in the last Bulletin brought several requests for more information on this odd device of the mid 20's. At left is a typical detector circuit with cross-section at right. The tube has a frost coating making it impossible to see internal construction.

UV-204 EXHIBIT

The most recent tube exhibit in the AWA Museum is a display showing the development of GE/RCA's high power transmitting tube Type 204-A. Tube No. 1 is an extremely rare development model made by Langmuir in 1915 and is pictured on p. 145 (SAGA).

Tube No. 2 is an early Piotron "P" tube (VT-10) p. 152 (SAGA) of 1919 vintage.

Tube No. 3 is an early UV-204 made in 1921 and resembles somewhat the "P" tube.

Tube No. 4 is an early UV-204 experimental model without socket connections.

Tube No. 5 is the first modern 204-A with copper end socket connections (see sketch).

No. 6 is a modern UV-204A pictured on p. 327 (SAGA) which is similar to the sketch except it doesn't have the glass tit and end connections are made of white metal.

A pair of UV-204's were used in the IBCG transmitter during the 1921 Transatlantic Test. The UV-204A was used in many early broadcast stations and was the first high power tube available to the radio amateur.

At right:
UV-204-A of 1924 - 1925 vintage

TUBE COLLECTORS: If you are not already a member of the VACUUM TUBE COMMITTEE, may we suggest you join this special interest group. Send $2 to: Lauren Peckham, Ormiston Rd., Breesport, N.Y. 14816. You will receive an illustrated Newsletter with tube history, etc.
OLD TYME ADS

WANTED
- early amateur equipment. State condition, make, model and price.
  H. F. Schmar, 115 Intercept Ave.,
  North Charleston, S.C. 29405
- AKA Type II tuner. Have for
  trade mint pair of AK al's
  $3509 and other AK breadboard
  items. Bill Pugh, 2285 E. Myrtle
  Phoenix, Ariz. 85020
  (602) 943-6782
- variable condenser for a Signal
  loosecoupler board having a phone
  condenser & l tube. Also old
  dynamo and motors. W. Harder,
  911 Northrup W., Lansing, Mich.
  48910
- parts for AK-10: need rheostat
  ass'y & AD type coil ass'y. Have
  empty AK Type TA det. & 2 stage
  AF amp. Inland green to swap.
  Also need AK horn base & driver.
  Cash/trade. Bernard Payne, 816
  Palisway S. W., Calgary, Alberta,
  Canada T 2V 3V 6 (403-281-4341)
- Radiolas 16, 20, 60, AK-20c,
  30, 33, Radi 100 spkr unrestored
  parts. Incomp. Info & dial plate
  for Echophone AC cath. set using
  80, 27, 400 A tubes. Rick Taylor,
  719 E. Lea Rd., Chattanooga,
  Tenn. 37421
- Amrad ceramic pot for #2632
  DAA unit UV socket made by
  Union Radio Corp., for MU-RAD
  MA-13 cabinet for Jones Symphony
  Magnavox amp (2 or 3 tube), junk
  Kennedy 525 ampcabinet for CR-5.
  Walt Sanders, 15 Todd, Terre
  Haute, Ind. 47803
- Grebe BC-1 battery box. Also
  Grebe Syn. Seven & Crosley
  Cathedral Mods. 122, 48, 58 and
  early AC sets. Richard Cane,
  831 N. W. 21 St., Sunrise, Fla.
  33322
- Radiola 20, Grebe Synchrophase,
  AK-9-10-12, Gillhillian GN-3,
  Kennedy 5, 15, 50, Pilot Super-Wasp,
  AC Dayton XL-25 complete or
  parts. Buy or trade Send list with
  price & description. Dave Pearce,
  675 Sylvan Ave., North Vancouver,
  British Columbia, Canada V7R 2E8
- Riders Radio Manuals 1 & 13-15,
  Knobs for Zenith 6-8-152, & front
  panel for Zenith Transoceanic
  SH40. Jeff Aukin, 803 N. Chicago
  Ave., Rockford, Ill. 61107
- Musicmaster base & driver,
  good headband & cord for Baldwin
  phones, (2) good WD-1s, power
  supply for WWII R-21-1x, rf mic
  /control box/manual for
  WWII 'PogoStick', Brian Harrison,
  W4KJK, 3227 Sudbury, Charlotte,
  N.C. 23205
- schematics & info for #274 Du-
  mont oscillograph, 1926 Arbor-
  phone. Also need interstate &
  xferrs rewound. Scott Todd, 2911
  Simpson St., St. Paul, Minn. 55115
- WE 3A & 5B oscillators, WE540
  spkr. Also need label from inside
  of lid from any junk Crosley cabi-
  net to complete Crosley V.
  Rodney Schrock, 402 Lincoln St.,
  Somersett, Penna. 15551
- transformers for Westinghouse
  WR-315 or equiv., rect. 80, and
  6.3 volt t1 circuit for 12 filament,
  Sam Brown, 6624 Chippewa Drive
  Pikesville, Maryland 21209
- Telega P-1 portable radio of
  1925 (Telephone Memorial Co.)
  of Chicago, Ill. also Carborundum
  detector. Leck Kemp, RFD 10,
  Box 15, Frederick, Maryland 21701
- Hallcrafter receivers models:
  8 through 5-7, SBPA-5 T-Skynard,
  SX-10, SX-12, SX-32 & SX-38
  plus other early Hallcrafter
  ham gear and accessories. Charles
  Bachis, W2DFO, 4500 Russell,
  Austin, Texas 78745
- will buy/trade tubes for crystal
  detector stands, especially a com-
  plete carborundum unit with pot
  and an A-K. unit. George Hayman,
  W5NED, Box 2476, Gainesville,
  Georgia 30501
- restorable Magnavox Mod. A,
  type TRF 50 receiver complete.
  D. Summer, Box 545, Davis,
  Calif. 95616
- books: Radio Boys, Radio Girls,
  Ocean Wireless Boys, Radio Detec-
  tive, all other juvenile/adult/
  electrical fiction. Jim Maxwell,
  W6CEF, Box 473, Redwood Estates,
  Calif. 95504
- Hallcrafter elevating base stand
  (5-22) for SX-42 receiver. Also
  need Hallcrafter Mod. R-44 spkr.
  Paul Jenkins, 172 Concord Circle,
  Panama City, Fla. 32405
  (904) 799-0144
- black metal box Atwater-Kent
  power pack with radius on sides
  and top for AK Mod. 36. Ross
  Smith, 113 Strong, Elkhart, Ind.
  46514
- Grebe CR-3 or 8 parts: vari-
  opumper, thumb wheels, dials. A
  junk set would be ok. Al Jochem,
  2041 College Ave., Quincy, Ill.
  62301
- Zenith farm radio Mod. 5F134.
  Will trade my exc Zenith Model
  58127 for same. Don Knott's,
  3168 N. E. Azalea Hillsboro, Ore.
  97123
WANTED
-- photos of rare or unusual U.S. manufactured long-range communication receivers (or permission to photograph same) for use in communication receiver history. H. L. Chadbourne, 550 Midway St., La Jolla, Calif. 92037

-- printed items: pre-1934 Commerce Dept. radio pamphlets, call-books, etc., issues of R9 magazine, seven-inch 78 QST volumes (need 1911, 1913, most pre-1960) Usually 4 volumes/year. Neil Friedman, N3DF, 2301 E. Street, N.W., A-701, Wash, D.C. 20037

-- info on following engineers of the 1920-30s: Paul Chamberlin (McKay Corp.), Harold Elliott (Victor/RCA) and Harry Forbes (Westinghouse/RCA). Arthur Harrison, 1021 Falcon Drive, Columbus, Ohio 43204

-- European tubes DF-II, DCH-II. Grebe CR-9 binding posts, Amper trans for FN-NR-5, tube shield for Neutrocum, SASE for sets for sale swap. Richard Foster, 12 Shavmut Ave., Cohuttaie, Mass. 01786

-- RCA RP-13 record changer with dual tone arm, played both sides of records used in V-229 console. Also RCA wire recorder. Carleton Serber, 256 W. 88th St., New York, N.Y. 10024

-- Crosley SIA (two stage amp.), tubes not necessary. Also schematics for Gilliland GNC. Joe Bernack, Box 899, Athens, Ohio 45701

-- HRO with pearl button S-meter, any HFO coils, SW-3, SW-5 coils and power supplies. Early ARRL Handbook in mist condition. Pete Patton, WEKQ, 3471 Churchill St., St. Paul, Minn. 55112

-- need for Apex 7-7 tube t/cf console Mod. 48/47 info, diagrams, photos, dimensions, etc. in order to restore. Also coils & cans. Sid Watkins, 21 Bridge Rd., Parkgate, Southampton, Hampshire, England

-- crystal detectors assay for Radiola V. Mounts on 2 9/16 holes separated 1 1/4" Base plate 3 1/4" with or without base plate. Larry Beboeh, 305 Centre Lane, E. Amherst, N.Y. 14051


-- audio output & IP xfmr for National RCE (like NC100), Owner's service data for Zenith Tanzosmarine Mod. H500, Chassis 5H40, Victor R 52, RE45 reproduction dials for sale. George Harris, 2012 S 26th St. Lubbock, Texas 79413

WANTED
-- for personal collection. Echophone EC-1. Will pay any reasonable price. George Kasdorf, W9FSA, 701 S., 8th St., Goshen, Ind. 46526


FOR SALE and/or TRADE
-- trade DeForest D-15 chassis with 2 plug-in coils for AK breadboard dot-amp turrent or any Grebe CR series chassis. C. Byrnes, 1201 Sycamore Terrace, #102, Sunnyvale, Calif. 94086

-- send SASE for list of misc. radio parts, tubes & magazines before 1930. Gary Schneider, 8648 Commonwealth Blvd., Park Hgts., Ohio 44130

-- collector is reducing collection: sets, spkr., tubes, books, magazines, test eqt. For details SASE F. Krantz, 100 Osage Ave., Somerville, N.J. 08083

-- sell QSTs from 16, Handbooks from 1928, Callbooks from 1913 to 1931 plus later years. Tubes from 1915, early radio magazines. Large quantity of other material. SASE for list. Ery Rasmussen, W6YPM, 64 Lowell St., Redwood City, Calif. 94062

-- trade Rider manuals, shrub 1, 2, 7, 8, 10, 12, 13, 14, TVL for volumes 2, 3, 4, 5, 15, 16, 18, 20 or any new volume items. Also have诒 in orig. boxe. Neil Shatto, RD#4, Harrisburg, Pa. 17112

-- sell/wrap Riders radio & TV, sets and spks. SASE for list. R. Husted, 280 E. Boca Ratn Rd., Boca Raton, Fla. 33432

-- trade 1926 ARRL Handbook (excellent) for Pilot Super-Wasp, Hammarlund Comet with X-tal filter, National AGS-X in walnut cabinet, Nat. SW5 AC, Thrillock. Any must be complete. Robert Campbell, 2175 SE Pine, Hillsboro, Oregon 97123

-- matched pair of metal ribbon belts for Atwater-Kent Mod. 30 t/cf tuning condenser drawer. Replica made in 1973. $2.50 (pair) plus 50¢ handling/postage. Dale Hammer, 2206 Tampico Trail, Bellbrook, Ohio 45305

-- trade: restored AK-10 (4700), Federal A-10, Sears Roebuck loose coupler & candlestick telephones for: New sets or parts, or Amad sets. Geo. Hausske, 1922 E. Indiana St., Wheaton, Ill. 60187

FOR SALE and/or TRADE
-- large assortment of books dating from 1900 thru the 30's covering radio, telegraphy, etc. Some quite rare. Prices reasonable. SASE for large list. D. Deeley, 8 Briar Circle, Rochester, N.Y. 14618


-- sell 01A 4-37, 24A 2-34 all tested cheap ones do not look nice or glass is loose on base. Gernsback volumes 1931, 32, 33 at $20 each. Robert Ireland, Pleasant Valley, N.Y. 12559

-- 153 Radio News 1918-20 to swap for other mags: Radio Journal, Broadcast, Retailing, Dealer, Age, Topics, Digest, etc. Also want IRE Trans. 1913-26, RCA Proc. Elect. Experimenter 1913-20. Alan Madigan, Box 225, Pocasset, M.A. 02559

-- Masotta 1E xfmr input, interstage & output, $175, 262, 310 & 456 kc. .33 each plus shipping. Daniel Gaidos, 342 W. River Rd. Orange, Conn. 06477

-- sell/swap reprint of Pilot Radio Tube Corp. data sheet of instruction building & operate. Super Wasp K-100 kit receiver. John Webb, 6267 Squirrel Dr., San Jose, Calif. 95129


-- swap Section DR-6 AK-10, 20, 20 compact, 30, 35, Kolster 6D, Radiola III, Riders 1, 3, 4, for similar radios. Need early Kennedy, Federal, early TV sets, horn type phone parts. Alvin Heckard, RD 1, Box 68, Lewiston, Pa. 17044

-- sell 20 battery radios, 1-16 Riders, SASE. Want Radiola-IE tuner, AR-RF amp, Radiola 11, 11, IV, VI & AR-1900 unit. D.A. Swindal, 112 Son Jose Lane, Hanahan, S. C. 29406

-- trade Instrucograph, black simulated leather case, working with one tape, also W-U branch panel 3-F for cathedrals. R. Cutter, 701 19th, Glenwood Springs, Colo. 81631

-- AK-20 compact, Magrane 10, 1928 Randolph, Crosely Xf, magazines & more stuff. Large SASE with 2 stamps for multipage list. Rick Ammon, Box 104, Mt. Carmel, Illinois 62863

(Cont. on next page)
COMMUNICATIONS NEWS

BRIEF REVIEW OF RECENT EVENTS

RCA ROCKY POINT AND RIVERHEAD

SOLD FOR ONE DOLLAR!

The RCA Corp. will sell 7,200 acres of Suffolk County pine barrens—valued at more than $42 million—to the state for $1 next Thursday for use as a preserve, sources familiar with the transaction said yesterday.

The property includes 5,200 acres in Rocky Point and 2,000 in Riverhead. Under the arrangement, which has been the subject of negotiations for the past few weeks, the state would pay local districts what would be lost by taking the property off the tax rolls this year. This would, for example, ensure that residents of the Rocky Point School District would not lose the $500,000 that RCA has been paying annually in property taxes. The tax support would be phased out over a five-year period.

Howard Clark, a spokesman for Gov. Hugh Carey, would only confirm that negotiations had been taking place between RCA and the state Environmental Conservation Department. But sources close to the situation said that the agreement is to be signed this week, before a press conference on the site. RCA officials could not be reached to confirm the sale.

The Rocky Point land stretches from Route 25A to Route 25. It is the largest privately owned piece of undeveloped land on Long Island. The other 2,000 acres are in Riverhead, less than a mile from the downtown area.

RCA, which opened the world's first transatlantic radio transmitting station on the Rocky Point property in 1921, has sought to divest itself of the land because of high property taxes since it tore down the transmitting towers last year. RCA has been paying more than $1 million in taxes annually on the land, which is worth about $6,000 an acre.

The company had originally considered donating the land to a university, which would have taken it off the tax rolls. Local officials were upset that they would then have to tap local property owners for the difference.

The state is interested in the land both to preserve the pine barrens and the fresh groundwater supply underneath. Environmentalists have warned that if the pine barrens are developed, the pollution from the development will contaminate the water.

Residents, the sources said, will be allowed to use the land for such activities as hiking or hunting, but said it would remain undeveloped.

Under state law, six of the 16 districts that collect taxes on the property would be eligible for a procedure...
This month's broadcast receiver is both rare and unique in design. The Magnavox TRF-5/TRF-50 is a conventional 5 tube except it uses vario-
meters in place of rf coils and vari-
able tuning condensers. The vario-
meters are of flat design and are me-
chanically connected for single dial
control.

Fine tuning or alignment is obtained by small variable condensers d, e and f. They can be seen as a small knob
left of each rf tube.

The set as pictured has the odd shape coated Magnavox tubes (also rare) but conventional 201-As work as well.

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**How Smart Are You?**

Here's a little quiz for the old timers who listened to 600 meters. Match up the ships with the calls:

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<thead>
<tr>
<th>Call</th>
<th>Ship</th>
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<tbody>
<tr>
<td>GFWV</td>
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<td>GLRZ</td>
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<td>VQJP</td>
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(See last page for answers)

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**Morse Lives On**

Visitors to the AWA Museum have admired the Morse sounder clicking away in the old radio shack.

The sounder is actuated by a National SW set usually tuned to WCC or CFH. But how does the 8 ohm receiv-
er output actuate a DC sounder?

W2OWF made a solid-state model for the Museum -- and now you can make one too: see page 36 of the Oct-
ober, 1978 issue of QST magazine for circuit. .
We are often asked, "What constitutes an Old Time Transmitter (or Receiver)?" It is a thing of beauty in the eye of the beholder which comes from or which illustrates equipment used by radio amateurs during the years prior to 1940. This period is sometimes called "The Golden Years of Radio" by most authorities, notably among whom is author and AWA member Bill Orr, W6SAI/KH6ADR.

An old time transmitter or receiver can be many things. It can be an original factory made or ham constructed; a restoration with some necessary new parts; or one built entirely with new parts but following the old style and circuits. Any of these could be arbitrarily dated and qualify in our AWA Contests.

There are in existence some pre-1940 usable factory made sets and some ham constructed sets. These are the preferred types. But, since hams are inveterate experimenters and re-builders, these old jewels got lost in the shuffle and often wound up as spare parts in the junk box.

Name-plates, old magazines or instruction manuals, a beat-up log or a fading memory easily establishes the date and style of equipment.

A search of the far corners of the attic, basement or garage may bring forth a shell or skeleton that can become a beautiful restoration, depending on the amount of effort applied to the project.

Perhaps a friend could supply a cannibalized piece of gear. From there, the joy of re-building, dickering for old parts, scrounging the junk box, perusing old magazines or just day-dreaming is only exceeded by the extreme exhalation of watching the meters climb or hearing signals come from the dead.

If a number of modern parts must be used, that's OK. Think of the fun of attending auctions and flea markets as a search is made for older parts that will make your restoration more like the original.

Dating it should be easy because data can be obtained from old catalogs at the AWA Museum or from back issues of the Old Timers Bulletin. Many AWA members are quite knowledgeable on this subject and are willing to help.

Our last category is a piece of equipment built from scratch -- following a design in an old catalog, QST article or Handbook. Perhaps our imagination fancies an old transmitter or receiver that for one reason or another we were never able to build. Starting with the junk box, then trading, begging, borrowing and maybe even buying what we need, we may even have to make a component or use a modern part if all else fails. It seems that what we are saying is that the circuit and tubes determine the date of our set.

There are no hard and fast rules for dating a transmitter or receiver because of the many variables just stated. We leave it up to individual members' judgment. Our OT Operating Contest is judged by the QSO score turned in -- not by the age of the equipment except that we draw a line at 1940 to divide the old from the modern.
While we generalize in dating our OT gear, there are many real old and interesting components in use -- some with history. For example, W2BGN rates his transmitter as 1930, so let us look inside:

-- the Western Electric 205-D oscillator and buffer tubes came from speech equipment of WHAM and were used in the period 1927-1933. If they could talk, what stories they could tell about handling the voices and music of the great people and the entertainments, news and information of the day...

- the OT transmitter at W2BGN

-- the plate blocking Paradon UC-1014 002, 3000v. condenser came from the AWA Museum and was used in 1921-24, but where ?...

-- the final PA 50 watt, a WE 211-D came from W2LV and was used at WEAF sometime between 1922 and 24. Imagine what this tube could tell! A spare came from WHAM and was used in the original W.E. 2-A 100 watt xmitter in the 1922-27 period...

-- the fan type meters came from a W.E. 214 Meter panel used at the WHAM studios (1927-1933).....

-- the twist key switch and Crescent resistors came from W2LV and had served at WEAF or possibly NBC at 711 5th Ave. studios 1926-30.

-- the Cardwells functioned at BBGN 1924 and on, to work the world and handle traffic...

-- the bug key was born in 1925 as a Vibroplex Blue Racer, chrome plated in 1927 for 5$. It was a commuter key being carried in its little black case from BBGN/W2BGN to the Control Room of WHAM where it answered the call HM on the NBC Morse wire. All ops had to know American Morse to handle program traffic and technical details with the operating department and communicate with the Long Lines test boards of AT&T.

To make things more interesting, NBC hired professional Morse telegraphers in their offices and "you better believe it" -- they made the BC station ops snap to it -- particularly when a "FLASH -- all stations..." went out!

WHAM was on the trans-continental Morse Wire where traffic was heavy and Mr. Bug got plenty of exercise! At the end of a shift, it was back into the little black box and home to Continental code again to work the ham bands.

-- the circuit... xtal control with a buffer and grid neutralized PA. The PA output was capacity coupled by means of a condenser voltage divider after the way of early broadcast stations. This circuit later became known as the Collins Pi Tank. The span of 1924-27 seems to cover these features and an over-all date of 1930 fits well.

-- the style... the mechanical design of panel and tube shelf was inspired by the picture on the front cover of the first RCA Catalog of Amateur Radio Apparatus dated September, 1921.

Like those of previous years, our 1978 CW contest unearthed a few more historical pieces of gear. Our winner, K4TS, delighted in using a 1936 Ted McElroy bug and a Clapp-Eastham "Boston" straight key.

VE3BDV punched out the dots and dashes with a Bunnell "Camel-back" key purported to be 100 years old.

W2PW, besides his early ESCO motor generator, pounded a Western Electric Camelback which dates 1895.

Still another camelback appeared under the fist of K8BVL, a Tillotson, which he tentatively says "1875"? His whole anatomy was supported at the operating position by a 1905 vintage Morris Recliner... remember?

What are you using in your OT xmitter OM? Drop a note to your Editor...
STORING USED TUBES

Do you have old style tubes around and need an economical means to store them? Obtain a piece of corrugated cardboard and mark hole locations of prongs and make holes with an ice pick. One can place the cardboard on a 1" x 1" wooden frame or take a cardboard box and cut it to a depth around 2" and use the bottom as mounting surface. The tubes will stand upright and one can use a large felt marker pen for identification. (W2FW)

LOOSE TUBES!

On the subject of tubes -- don't forget that one of the best methods to tighten a loose tube to the base is to use Krazy Glue obtainable at most hardware and appliance stores. Just drop a small amount in three places between the base and glass, press down and hold for 10 seconds. It will never come loose again. (A. Roberts)

RESTORING "ABOX" and "FANSTEEL" "A" POWER SUPPLIES

These wet "A" power supplies were popular around 1926-27 -- but when usually found today will be inoperable because the solution is gone and there will be a dirty residue at the bottom of the jar. This is what I did to get mine in operation: I carefully removed all the old residue and thoroughly cleaned the jar with distilled water (be careful with the anode -- it is brittle!). Then filled it with a solution of potassium hydroxide. My power unit yields about 6 volts at 2 amps. (F. Pagano)

DIAL EXHIBIT

Do you want something different and attractive in your amateur museum? Why not have a DIAL EXHIBIT?

Leo Jones (San Francisco) recommends a display of old knobs and dials. They can be easily mounted on a large peg board with 1/4" dowels cut to 1/2 and 3/4" lengths. One could have different groupings: large tuning dials, small knobs, etc.

ATWATER KENT STORY

Still available -- the booklet published by Worcester Poly-Tech covering the life and work of Atwater Kent as noted on page 15 of the June, 1978 QST. Send $2.50 (postpaid) to:

John Walkorowicz
11 Hertford Rd.
Worcester, Mass. 01606
ICEBOUND IN THE SIBERIAN ARCTIC
by Robert J. Gleason

This is the story of a voyage to the Arctic coast of Siberia in 1929 by the fur-trading schooner "Nanuk" as told by the ship's radio operator. The vessel became imprisoned by the Arctic ice pack and was forced to stay the winter there. A 1929-style air support, summoned from Alaska by ship's radio, met with disaster when one of the planes became lost.

It is a fascinating true adventure tale, with many interesting details on the period radio work involved. A good book for fireside reading on a raw winter afternoon.

The book is 164 pages, softcover, published by the Alaska Northwest Publishing Co. of Anchorage, and available from the Ham Radio group, Greenville, New Hampshire, 03048 for $4.95

(Frank Kohl, W3NM)

Have you read or reviewed a good radio book lately? Write and tell us about it....

THE Cat's Whisker
50 YEARS OF WIRELESS DESIGN

JONATHAN HILL
PHOTOGRAPHS BY TREFOR BALL

This beautiful book of 95 large pages (8 1/2 x 11 1/2") is written by Jonathan Hill, Secretary of the British Vintage Wireless Society. It covers British radio development from the earliest days until shortly after WWII. The book has 120 large illustrations which should appeal to both the radio historian and collector. Highly recommended. Overseas members may purchase the book from:

TUDOR REES, 64, Broad St., Staple Hill, Bristol, BS16 5NL, England

It is available to U.S. and Canadian members for $9.95 plus $1.00 postage and handling (softcover) from: JIM FRED, RR #1, Box 41, Cutler, Ind. 46920

or Historical Radio Services, Box 15370, Long Beach Calif. 90815
The 1978 season was another great year for your Museum. Thousands of visitors including both elementary and high school classes as well as college groups found their way to the building. The Museum Store under the guidance of Dan Kwarta was an added attraction as well as profitable.

Latest equipment for display includes a complete Alexander alternator of 1912-15 vintage from RCA Rocky Point and a rare siphon recorder from the Smithsonian once used by ITT at their Newfoundland transatlantic cable station. In addition, N2ABD donated a seldom seen UV-206 tube. More on these items in a future OTB.

AWA is indebted to the fine staff of volunteers who maintained the Museum. The building was closed Oct. 29 and will re-open Sunday, May 6, 1979.

**ANSWERS TO QUIZ**

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And for the experts, who did these calls belong to: MSU and GBRQ ?
(Bill Orr, W6SAI)

**THE MUSEUM**

A.W.A. HISTORICAL MUSEUM
East Bloomfield, N.Y.
Bruce Kelley, Curator

<table>
<thead>
<tr>
<th>Museum Hours:</th>
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<tr>
<td>Sunday ——— 2 to 5 P.M.</td>
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<tr>
<td>Wednesday ——— 7 to 9 P.M.</td>
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<tr>
<td>May through October</td>
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<tr>
<td>Open to groups by appointment</td>
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<tr>
<td>Tele. (716) 657-7489</td>
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<tr>
<td>Free Admission</td>
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<tr>
<td>Museum Telephone:</td>
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<td>(716) 657-6260</td>
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**TUBE IDENTIFICATION** information available (basis for Bro. Pat’s Conference talk.) 13 pages of valuable information with illustrations. Send large SASE with 41c postage to AWA Headquarters, Main St., Holcomb, NY 14469

**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 commentary was made by former CBS radio announcer Stew Metz. The show with tape is yours for only $21 postpaid. Make check out to A.W.A. and mail to:
AL CRUM
16 COSTAR ST.
ROCHESTER, N.Y. 14606