

*AWA Review***The Gross Radio Company
- A Historical Background**

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ABSTRACT

The 1930s were the halcyon days for the radio amateur. Nearly every red-blooded American man and boy eagerly read *QST* magazine. Aside from reading, or perhaps because of it, many of these newly minted radio bugs also sought out a company to supply their radio needs. A radio ham named Jerome Gross, also known by his call sign of 2AUD, stepped forward. In the next 20 years Jerry was to live out his own real life Horatio Alger story, through a small business located in Manhattan, in an area later to be known as "Radio Row".

The history of that business, known in its latter days as the Gross Radio Company, is recounted here. Unfortunately, time has erased much of the recorded history of Jerry Gross and Gross Radio, as it has with nearly all the equipment he produced. However, the history of Gross Radio has been reconstructed, largely via Gross's ad placements in *QST*, and other supporting references.

RADIO BACK IN THE DAY

The time was the late 1920s, and America, like much of the world, was mired in the midst of the Great Depression. Jobs were scarce, bread lines were common, and times were admittedly hard. Yet, to borrow a phrase from Dickens, "It was the best of times, it was the worst of times", for the darkest days for our country were the beginning of the Golden Days of radio. Americans needed distractions from the cares of the day, and radio had captured the American imagination like no other invention before. One could now "listen in" on the world, bringing news from around the globe into the living room each evening.

These were the halcyon days for the radio amateur as well, with radio stores popping up in small cities and towns, offering knowledge, parts and supplies to the budding "radio bug". It was American ingenuity at its best, with whiskey shot glasses becoming insulators for the tuning capacitor, wooden breadboards and kitchen cake pans becoming the chassis for the latest receiver or transmitter creation, and tin-foil and plate glass becoming transmitting capacitors.

With funds limited, the time-honored tradition of home brewing or building your own set was the word of the day. Those who bought "commercial jobs", or assembled sets, were often looked upon with disdain, perhaps even with a tad of envy, for breaking tradition by the more experienced of the amateur community. Although fone modulation was used, CW was still the dominant mode, as it was simpler to build, therefore less expensive to the cash strapped amateur. Vacuum tubes were costly, and so most sets consisted of simple oscillators with one stage of gain. The MOPA (Master Oscillator Power Amplifier), Hartley, and TPTG (Tuned Plate Tuned Grid) rigs were the rule of the day.

Gross Radio

J. GROSS & CO.

In the spring of 1925 a new radio firm, "J. Gross & Co.", entered into the mix.¹ It would appear that Jerry Gross 2AUD made his initial foray into the radio business in early 1925, for his first ad appeared in the March issue of the ARRL publication *QST* (see Fig. 1). The ad featured a set of "coupled inductances" selling for the sum of \$10.75, and listed the firm's address at 323 East 83rd Street in New York City. Subsequent ads in the April, September and October 1925 issues of *QST* also listed this address.

The early Gross ads were simple, at first listing only coils and miscellaneous parts, but as time went on, Jerry would become increasingly diverse in his offerings. Starting with the "coupled inductances" in 1925, and progressing to wave meters in 1926, by 1927 Gross was selling regenerative re-

ceivers, and Hartley or Tuned Plate, Tuned Grid (TPTG) transmitters, as kits or fully assembled units.²

Gross appears to have either moved or expanded its business in late 1925, for the January 1926 issue of *QST* now listed the Gross company at 907 Fox Street, with a new "laboratory" address at 74 Dey Street (Fig. 2). The June and July issue of *QST* still has the 907 Fox Street address, but the laboratory has now moved to 30 Park Place.³

In August of the same year, Fox Street was dropped, and "J. Gross & Co. Manufacturers" listed only the 30 Park Place address. With his move to Park Place, Jerry also began to offer on-air code practice using the call sign 2AUD. The frequency for this operation was listed as "39.5 meters" in his ads and the lessons were transmitted using a "Teleplex", an early



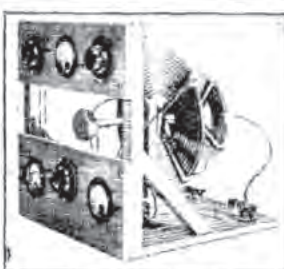
Coupled Inductances
\$10.75

Rugged construction
fine screw adjustment
Very heavy ribbon.
Just the thing for short waves.

R.F. choke Coils \$1.50
Postpaid.
Include extra postage for inductance.

MANUFACTURED BY
J. GROSS & CO.
Phone 323 E 83 Street
Lenox 10199 New York City, N.Y.

Fig. 1. The first Gross ad in *QST*, March, 1925.

20, 40, 80 METER Low Loss Coupled Inductances PYREX } \$3.00 PILLAR } MOUNTING } EXTRA \$6.75 POSTAGE Wound with Heavy Brass Ribbon, Coupling Easily Varied. This O. T. specially designed for Short Wave Work; not daubed full of high loss black paint, like some old-type helical inductances. Panel Mounted Transmitters in Stock 5 Watts Up QUARTZ CRYSTALS, FOR CONTROLLING YOUR TRANSMITTER \$6.50 EACH For Personal Calls Laboratory at 74 Dey St.		WAVE METERS 20 TO 200 METERS \$18.75 POSTAGE EXTRA Enclosed in High Grade Case-Lamp Indicator, Calibration Accurate within 1%. Furnished with Galvanometer for \$33.75. DOUBLE SPACED TRANSMITTING CONDENSER 21 PLATES \$5.50 Best known make on the market. Stock up on these at above price, they won't last long. Address Mail J. GROSS & CO. 907 Fox St., Bronx, N. Y. City
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FULL LINE PARTS AND TUBES ON HAND. WRITE FOR LIST

Fig. 2. J. Gross & Co. ad in *QST*, January, 1926.

machine that generated perfect CW characters via perforated paper tape.⁴

Looking at the address change and timeline, and knowing a bit about the radio business back in the late 1920s, we can speculate that like many hams, Jerry first started his business in his home, most likely the East 83rd street address, and then as the business expanded, he moved to larger commercial quarters.⁵

Gross continued to run monthly ads in *QST*, with an ever-expanding product line, right up until January of 1928, with the last ad of "J. Gross Company" listing its address at 30 Park Place. Jerry's last ad was for a rather simple offering, "low loss, plug in coils", a far cry from the sophisticated transmitters and receivers he had offered in earlier years. With little in the way of formal company records available, we can only guess why Jerry curtailed his advertising, but given the economic climate of the day, the country was in the grip of the Great Depression, I think it is safe to suggest that he may have encountered some sort of business reversal. This idea is further supported by the next *QST* ad to mention the name Jerome Gross, an ad sponsored by Leeds Radio.⁶

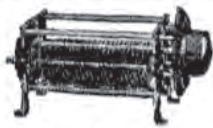
Whatever the cause, it appears

that Jerry went to work for Leeds Radio in October of 1929 as the supervisor of the new "Leeds Radio Lab" (Fig. 3). At the time, Leeds was best known as a purveyor of radio parts, and with the addition of Jerry to its staff Leeds began to offer kits and completely assembled radio apparatus.

The new Leeds Radio Lab advertised, "This department under the supervision of Short Wave Specialist Jerome Gross. We design, construct and advise on any material for the "Ham" Broadcasting station or laboratory. Write Jerry Gross for advice on any of your problems." Apparently this arrangement must have worked well for both parties, as subsequent Leeds ads continued to offer a line of receivers and transmitters designed and constructed under Jerry's supervision. Most of these units bore a striking similarity to the offerings of the former J. Gross Company, and it appeared that with the closing of his own business, Jerry had shifted his basic designs over to Leeds.

From October of 1929, until August of 1931, Jerry Gross was mentioned in nearly every Leeds radio ad in *QST*. However, Jerry's name was conspicuously absent in the September 1931 issue. The reason for this omission became clear just one month later.

Gross Radio



National Transmitting Condenser

We carry a complete line of parts made by "NATIONAL."

LEEDS

The Home of RADIO
45 VESEY STREET
NEW YORK



General Radio Transmitting Condenser

Type 334-P — .00025
cap. 3000 volts
R. M. S.
(3500 v. peak)

\$5.50



ELECTRAD Tru-volt Wire

Fixed Resistances from 1 ohm to 100,000 ohms—can be tapped at any resistance.

We carry a complete line of Electrad products.

New York's Headquarters for Transmitting Apparatus
When in Town Visit Our Store



NEON GLOW LAMPS

Made by General Electric Co., type G-10, standard base, 101 uses, as illustrated in QST May issue page 17. Price only 65c

Make your own transmitting and receiving coils. Copper tubing transmitting inductance.

Size of tubing		
Inside Dia. 3/16"	1/4"	5/16"
2 1/8"	9c	10c
2 1/8"	9c	10c
5 1/8"	10c	12c
		17c*

Prices per turn

Everything in Cardwell

Acme Thordarson Jewell
Flechtheim Signal Bradley
Tobe Pyrex Fleron
General Radio
IN STOCK

\$7. THORDARSON R-195 TRANSFORMER

for B-Eliminator using the Raytheon B-H tube. Will carry the maximum current consumption without overheating. Low 235 volts either side of centre tap—high 285 volts other side of centre. Just 50 left, after that no more at any price.

\$2.25

Ham Green, double silk covered, No. 16 receiving inductance.

2" diameter, 30c per inch
3" diameter, 35c per inch

Aluminum Shield cans and panels of every description to order.

NATIONAL RECTOBULB

An unusually reliable and efficient rectifier tube.

\$10

Price each

By Insistent Demand

LEEDS 50-watt socket, positive contact; heavy phosphor bronze prongs, heavy brass shell; will hold your tube in one position.

Special, **\$2.50**

FEATURING

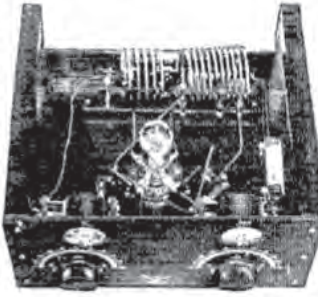


New LEEDS all aluminum plug in Short Wave Receiver. Coils not exposed, thereby insuring 100% shielded job. Short Wave — 4-tube Receiver — detector — 2 audio, using three 201-A tubes. Universal type, continuous range 15 to 100 meters; amateur type covers Ham bands 20-40-60 meters with generous spread on the dial.

List price \$60.
Special Offer, net **\$37.50***

New LEEDS 75-watt Hartley 1929 type transmitter. Ideal for the beginner or anyone desiring a transmitter extremely simple to adjust and operate. Will operate with a 201-A tube, with 90 volts on the plate, up to a 11X-210, with 30 watts input; has plug in transmitting coils. List price — lot \$55. Completely constructed \$70.

Special Offer, completely constructed, **\$57.50***



PLEASE PRINT YOUR NAME AND ADDRESS PLAINLY to AVOID DELAY

WRITE FOR SPECIAL PRICE LIST

MAIL ORDERS FILLED SAME DAY
10% Must Accompany All Orders

Fig. 3. Leeds Radio ad in QST, October, 1929.

In October of 1931, a new ad debuted in the pages of *QST*, heralding a new radio firm, the "Gross Radio Company" (Fig. 4).⁷ Jerry

Gross, now W2AAE, was back in business. The new *QST* ad opened with the pronouncement that amateurs should "Work 30,000

hams and tell them that Jerry Gross has opened his own ham radio store." The new Gross Radio Company store, also known as "Jerry's Place", was originally located at 25 Warren Street, and later moved to 51 Vesey Street, an interesting address, for Leeds was also located on Vesey, right down the street from the new Gross store, in the area that later came to be known as "Radio Row".

THE NEW GROSS RADIO COMPANY

During the 1930s Gross Radio thrived, and their ads could be found in a number of radio publications, including *QST* and *Short Wave Craft*, offering a variety of kits and assembled units. In fact, the monthly *QST* ads from Gross were often $\frac{3}{4}$ or even full page, on the level of much larger companies like National and Leeds. The first product offered by the new company was the "Sensa-

tional S.W. Receiver", assembled and tested, for the sum of \$22. The set, a simple three tube regen, employing a type 236 as the RF amp, another 236 for the detector, and a 238 for the audio amp, was later to be named the Gross "Hawk" in an ad appearing in the March 1932 *QST* issue.

As these were the days of the Great Depression, many amateurs lacked the funds to buy even a radio kit, much less an assembled unit. So, aside from Gross transmitters and receivers, the company also sold radio parts and products manufactured by other firms. In one Gross *QST* ad, the header began "If We Don't Carry It In Stock, We'll Get It For You." Gross also offered custom building for the discerning client; proudly advertising "Our lab is equipped to build anything to your own specifications." If that were not enough, a Wednesday evening "Code Class" was even offered in the store from 6:30 to 7:30PM,



JERRY GROSS HAS HIS OWN HAM RADIO STORE (W2AAE)

TELL THEM—as an introductory offer, Jerry is going to give away FREE a 50 watt, crystal controlled transmitter (\$350.00 value). Every purchase of \$1 or more entitles you to a chance to win this fine job. This transmitter is an example of the fine work Jerry is doing in his completely equipped ham lab.

FREE ADVICE on radio problems. Stop worrying about that temperamental transmitter—tell Jerry the symptoms and you'll be back on the air—better than ever! Your letter will receive the personal attention of Jerry Gross.

FREE—Mounting holes on copper tubing drilled free. Yes, we have bright finish tubing.

Get in touch with JERRY GROSS—right now! . . . write now!!

FREE CODE CLASS. Here is an opportunity to learn the code or speed up. The class is supervised by one of the leading commercial ops—write or call for dope.

25 WARREN STREET

COMPLETE LINE OF STANDARD AND "HARD TO GET" PARTS



SPECIAL TRANSMITTERS AND RECEIVERS CONSTRUCTED—any type job built to your own specifications.

NEW LINE of crystal control transmitters IN UNIT FORM. Component units of this transmitter may be purchased separately. Write for more details.

NEW YORK CITY

Fig. 4. Gross Radio Company ad in *QST*, October, 1931.

Gross Radio

with the advice to “bring your own phones.”

Perhaps because of his parts sales business, Jerry was surprisingly tolerant of window shoppers and tire kickers, and “Jerry’s Place”, as the store came to be known, grew to become quite the gathering place for hams. Bill Orr W6SAI, writing in the February 1977 issue of *CQ* magazine,⁸ had this to say about his visits to Gross Radio as a young ham: “Most amateurs spent their time in Jerry’s store examining the model transmitter carefully set atop a counter, and copying its circuit so they could build the equipment out of scrap parts salvaged from a defunct broadcast receiver!”

Gross Radio, like many other radio businesses of the day, offered their product in both kit, and, for an additional charge, in assembled form. Although Gross’s most famous and longest running product was arguably the CW-25 series of transmitters, the company also offered a line of receivers, antenna meters, and even a station monitor.

EARLY GROSS TRANSMITTERS

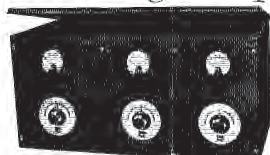
The original J. Gross & Co., at the 30 Park Place address, appears to have offered their first transmitter in the pages of the May 1927 issue of *QST*. Details are sparse, but listed are a 7 ½ watt unit for \$47.50 and 75 watt variant “for use with the new UX-852 short wave tube”, listed for the sum of \$65.00. The set was offered as a Tuned Plate, Tuned Grid (TPTG) design. Both transmitters were offered as kits, and construction was typical of the day, a flat black panel, perhaps bakelite, with three meters arranged in a row near the top of the panel, and a series of three knobs below.

During Jerry’s time at Leeds Radio, his offerings appeared to have been limited almost exclusively to a small regenerative receiver set, and Hartley transmitter. The receiver, which covered 15 - 100 meters with three plug-in coils, offered band spread for fine-tuning, used three of the 201A tubes, and sold for \$37.50. The 7 ½ watt Hartley transmitter initially sold for \$57.50 assembled, and is shown housed in an attractive black enclosure with two front panel meters, and is noted to operate with a 201A or UX-210 tube. Precious few details about Jerry’s other designs or offerings can be found, and aside from the Leeds ads, we almost lose track of him until he resurfaces in late 1931.

In 1931, one of the first transmitters listed by the new Gross Radio Company was a 75-watt Hartley, first offered in the November issue of *QST*. The unit sold for the then princely sum of \$52.50 as a kit, or \$65 assembled and tested. Gross did not seem to skimp on the quality of parts used in his offerings. In the ad for the Hartley mentioned above, he boasted that the transmitters were equipped with “Jewell meters, Cardwell condensers, and Ward Leonard leaks” all of which were top-notch manufacturers at that time. Gross even offered the Hartley in a QRP version, advertising the “7 ½ watt” model at \$32.50 as a kit, or \$40 assembled. The optional 2000-volt, 200 milliamp power supply would set the buyer back an additional \$67.50.

In addition to the Hartley, Gross also sold a line of simple crystal-controlled transmitters. These used the type 210 tube, with an optional amplifier stage, also using a 210, boosting the power

Startling low prices for Sterling Equipment!!



The
Famous
GC-30
Crystal
Control
Transmitter

Now a greater value than ever—HOYT METERS—GERMAN SILVER DIALS—BAKELITE INDICATOR KNOBS and other refinements at no increase in price.

Your choice of 210 oscillator 210 buffer 210 amplifier or Pentode oscillator 210 buffer 210 amplifier. Can also be supplied with two 210's in push pull in output stage. Completely assembled ready for you to wire with three Hoyt meters, \$29.50; with three Weston meters, \$42.50; 210's push pull in output stage \$8.00 extra.

CLASS "B" MODULATION UNITS — for modulating the GC-30 complete kit, \$39.50
RELAY RACKS — fine for mounting the GC-30 or GC-100 and all power packs. Black crystallized finish, price, \$12.50
GC-100 — Same construction as GC-30 — a new higher powered job for use with 203-A or 211 in the output stage. Completely assembled, \$39.50



MONITOR USES FULL SIZE DRY CELLS

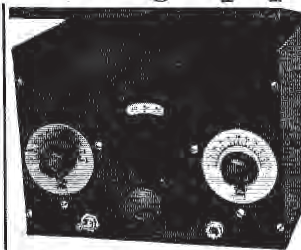
A real advantage for continuous monitoring. Again Jerry must say this is SO ME job. Has back of panel vernier dial shielded in black crystalline finish cabinet with hinged cover, complete with three plug-in coils for 20, 40 and 80 meters, all batteries and tube, wired and tested, \$9.95

FIVE METER RECEIVER — A REAL receiver, built in same cabinet as the Eagle, with two German Silver dial plates and fine action vernier dial. The quality of this set is above any offered — Jerry invites comparison — custom made construction — a fine job. Uses 2-237's and 1-238 tube. Employs QST super regenerative circuit. Completely assembled, \$12.50
Completely wired and tested, \$16.50

FIVE METER TRANSMITTER — Matched in appearance with the receiver, slightly longer cabinet supplied with two Hoyt milliammeters — Helium modulation — employs 2-245's and 2-247's — can also be used with 210's as oscillators and 250's as modulators by using one external stage of audio. Completely assembled, \$17.50
Completely wired and tested, \$22.50



HOYT ANTENNA METERS!!!
Hot wire antenna meters 1 1/2, 3 and 5 ampere ranges. Why do without antenna meters when you can buy them at Jerry's who knows what the "Ham" wants? Special low price, \$2.95 each
Hoyt perfectly damped meters at a price. These are not to be confused with the usual meter "bargains." 2" mounting hole, range 2 1/2" diameter, supplied in the following: 10 m.a., 50 m.a., 100 m.a., 150 m.a., 250 m.a., 300 m.a., 4 volt A.C., 10 volt A.C., 15 volt A.C., 10 volt D.C. Price each, \$1.60
three for, \$4.80



The
"Eagle"
a new
sensational
3 tube
S. W.
Receiver
\$16.95

Here at last is a short wave receiver embodying features comparable to those in sets selling at a much higher price. Unusually flexible, designed for continuous short wave broadcast coverage or ham band spreading. Constructed of finest material available, such as Hammarlund Insulante Insulated Condensers, etc.

This Receiver was designed for the discriminate buyer desirous of purchasing the finest short wave receiver of its kind, and should not be compared with any of the "junk piles" selling at anywhere near the price of the "EAGLE."

The "EAGLE" is guaranteed to give you the satisfactory performance you would naturally expect from apparatus produced by JERRY GROSS.

Economical to operate. Employs the new 2 volt tubes which can be operated from two dry cells on the filaments for extended periods of time.

Also the "EAGLE" is the ideal amateur receiver incorporating such features as full band spread, etc., it is not limited to this purpose alone, but is also an unusually efficient short wave broadcast or police alarm receiver. While full dial coverage on each ham band can be had, the "EAGLE" may be adjusted to cover continuous range from approximately 15 to 200 meters. This is very easily done by controlling the tank condenser which is operated from the front of the panel.

CHECK THESE FEATURES!!

SCREEN GRID 232 R.F. and screen grid detector offering highest possible gain and most efficient regeneration.

PENTODE POWER AUDIO — 233 gives more audio gain than obtained from two ordinary transformer coupled stages. Will operate speaker on most stations.

TANK CONDENSER — is operated from the front of panel and eliminates the objectionable necessity of lifting the cover. Speedy range changes at your finger tips. The ADDITIONAL condenser employed here gives much finer tuning than is possible with the ordinary large condenser.

BAND SPREADING CONDENSER — very small capacity permits widest possible calibration spread over a multitude of ranges. This feature gives you really two receivers for the price of one.

DIAL — latest design, real vernier control over any position of the frequencies covered. Absolutely will not jump or slip — very rugged.

REGENERATION CONTROL — Employs condenser for stability, ruggedness and velvet-like smoothness, not noisy like resistance.

POWER CABLE — Eliminates possibility of wrong connections and insures absolute electrical contact.

CABINET — Size 6" x 7" x 9 1/4", metal, compact, hinged cover, crystallized finish. Completely shields the receiver. Also ideal for portable use.

RANGE 15 to 200 meters — 4 plug-in coils are supplied with each receiver.

The "EAGLE" completely wired and tested. Price, \$16.95

The "EAGLE" complete kit of parts with diagram. Price, \$12.95

COMPLETE STOCK OF NATIONAL — HAMMARLUND — GARDWELL — JEWELL — WESTON and other standard lines always in stock — write for prices

PRICES CUT			
Plated copper tubing inductances wound and ends drilled free			
Inside dia.	3/16"	1/4"	5/16"
2 1/2"	5c turn	5c turn	5c turn
3 1/4"	6c turn	6c turn	10c turn
4 1/4"	10c turn	10c turn	12c turn

ACME SOLID ENAMELED COPPER ANTENNA WIRE	
No. 14 (any length) per 100 ft.	\$.30
No. 12 (any length) per 100 ft.	\$.45
No. 10 (any length) per 100 ft.	\$.80
No. 8 (any length) per 100 ft.	\$1.20

ALUMINUM	
Cut to size specified	
1/16" thick per sq. inch.	7/10c
3/32" thick per sq. inch.	3/4c
1/4" thick per sq. inch.	1c
Beautiful plug-in crystal holders	\$1.15 (limited quantity)

High grade filament transformers shielded in metal cases, center tapped secondaries	
2.5 volt 10 amperes for 860's	
10 to 12 volts at 8 amperes — either type	\$2.50
Special — 10 to 12 volt 7.5 amp filament transformer extra special	\$4.95

Biley superior crystals exclusive in New York with Jerry's — 40, 80 or 160 meter guaranteed crystals, \$5.50	
They must be good — otherwise Jerry would not sell them.	
Biley plug-in insulated bakelite crystal holders, polished chromium electrodes	
	\$1.50

No. 10 stranded Tinned Antenna wire strong and extremely flexible only \$.85 per 100 ft. (Any length.)	
Na-Aid S.W. coils 20-200 meters, set of four	
Guaranteed 210 tubes	\$1.40
DeForest 450 tubes, spec.	\$1.95

20% deposit with all C. O. D. orders. Include Postage.

A COMPLETE LINE OF STANDARD AND "HARD TO GET" PARTS

"JERRY'S PLACE"

25 WARREN STREET, N. Y. C. TELEPHONE BARCLAY 7-6698



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Sanoaks että näitte sen QST:ssä. Se on teidän tuntomerkinne ja se nauttaa QST.

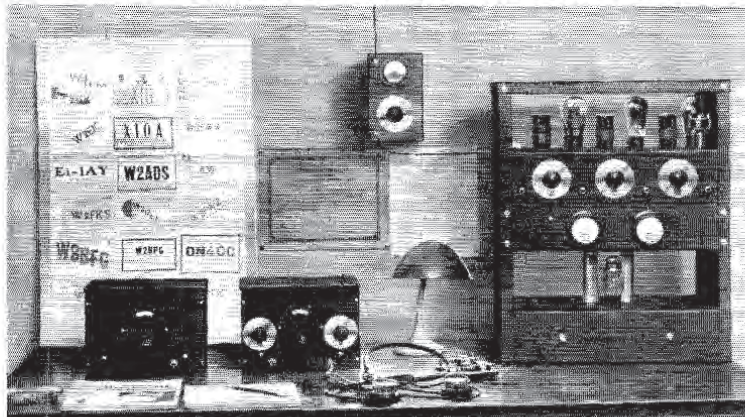
RUMFORD PRESS
CONCORD, N. H.

Fig. 5. Ad for "Jerry's Place" in QST, January, 1933.

output up to 75 watts. These were sold as separate units, costing \$23.50 for the oscillator kit, \$23.50 for the buffer/doubler

stage, and \$57.50 for the 75-watt output amplifier section. The design was rather simple, a rectangular box, with meter and Na-

THE NEW GROSS 25-30 WATT STATION

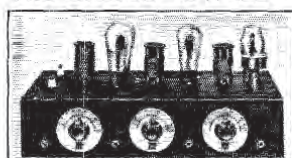


A STATION YOU WILL BE PROUD TO OWN

Complete GROSS Crystal Control Station

CW-25 Transmitter Kit.....	\$13.50
Power Supply Kit.....	8.75
Panel Rack and Meter Panel.....	8.00
Two Moving Coil Surface Type Milliammeters.....	7.00
Eagle S.W. Receiver.....	11.95
X cut 80 or 160-meter Crystal.....	2.75
Hoyt Hot Wire Antenna Meter.....	2.95
Antenna Tuning Condenser.....	1.25

The GROSS "CW-25" Crystal Control Transmitter Kit . . . \$13.95



The "CW-25" transmitter kit due to its low cost makes it possible for anyone to own a modern crystal controlled station. A schematic hook-up and parts layout sheet as well as tuning instructions are furnished, thus enabling the most inexperienced operator to wire and put the set on the air, for real results. The "CW-25" is supplied with a shrivel finished sturdy metal chassis under which all parts are mounted, making the wiring and components dustproof. A plug-in crystal holder is furnished with the kit. Only one milliammeter is required for tuning the transmitter and each stage is provided with a jack for this purpose. The "CW-25" uses one '47 as crystal oscillator, one '46 as buffer or

doubler and two '46's in the amplifier stage. One set of three coils is supplied with the kit for 20, 40, 80 or 160 meter band. Any additional coils are 75 cents each.

The GROSS "CW-25" Power Supply Kit . . . \$8.75

Mounted on shrivel finished metal chassis which matches the "CW-25" transmitter. Heavy duty power transformer, chokes, condensers, bleeder, etc. supplied. Uses one '83 rectifier. This unit and the transmitter make a neat combination as well as an efficient one.

The "EAGLE" Three-Tube Short Wave Receiver

"Band Spread" over any portion of the tuning range — only finest material used thruout. Employs one '32 R.F., one '32 detector and one '33 Pentode Audio — 15 to 200 meters — four coils supplied. The "EAGLE" is economical — two dry cells will operate the filaments. See March or April QST for full description of this most excellent value in short wave receivers.

"Eagle" completely wired and tested. . . . \$11.95 Three tubes tested in your receiver. . . . \$3.00

GROSS Band Spread Monitor . . . \$9.95

Completely wired and tested, with full size dry cells, 22.5V. C battery and type '30 tube

GROSS RADIO, INC. 51 VESEY STREET NEW YORK CITY

Fig. 6. Gross Radio, Inc. ad in QST, February, 1934.

tional Radio Type "B" vernier dials on the front panel of each unit. Band coverage was advertised as 80, 40 or 20 meters via the plug-

in coil sets. These rigs were to be offered only for a short time, and were later combined into one cabinet, the Gross "GC-30" set.

In the GC-30 set, the oscillator, buffer/doubler and output stage were all built into one enclosure, each section was divided by a metal partition, and individually metered. Plug-in coils covering 80, 40 and 20 meters were used in each stage for band selection. The GC-30 (I'm assuming the "GC" stood for "Gross Company") used the same 210 tube lineup as the early crystal controlled sets, but also offered an optional type 245 in the oscillator, if the customer so desired. In keeping with a theme he used throughout the life of his company, that of offering a "foundation kit" with options, Jerry also offered two different types of meters; the Readrite was standard, and the Weston optional. The base cost of the set with three Readrite meters, and three plug-in coils, was \$29.50. The upgraded model using the Weston meters was given as a shocking \$42.50!

The GC-30 was soon joined by the "GC-45" and "GC-100" transmitters, which were priced at \$37.50 and \$39.50 respectively. The "GC-45-B" modulator and power supply were offered as options for an additional cost. The GC-45 used the type 47 for the crystal oscillator, a type 210 in the buffer, and single 210 in the push-pull amplifier. The GC-100 tube lineup was the same, with a pair of type 210s replacing the single 210 in the final amplifier. The new GC-45-B unit offered both the power supply and a class B modulator on the same chassis, for the sum of \$52. Type 57 and 59 tubes were used in the first two stages of audio, with a pair of 59s used as the output on the modulator deck. Gross listed the audio output power at 30 watts, and claimed that the GC-45-B would "fully modulate a 40 watt carrier."

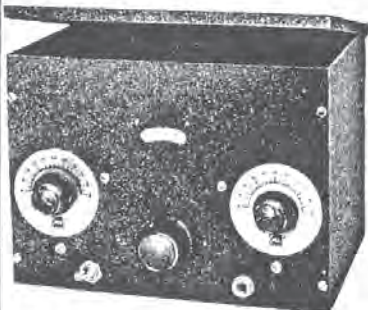
Hoyt meters were standard, with the Weston meter option also offered with these sets, for the additional cost of "\$3.50 per meter."

GROSS RECEIVERS

The Gross receivers took their names from the avian kingdom, with names like the "Hawk", advertised at "\$22 net", and the "Eagle" an entry level three tube regen, comparable to the National SW-3, for \$16.95. A low cost version of the Hawk, known as the "Hawk Jr.", without the RF stage, was also offered for a short time at \$14.75.

The Hawk series lasted only a short time. First introduced as the Gross "S.W. Receiver" in January of 1932, the Hawk appears to have been dropped from advertisements less than a year later, last appearing in the October 1933 *QST*. The tube lineup stayed constant throughout production, using the type 236 as the RF amp, another 236 for the detector, and a 238 for the audio amp. Gross proudly offered low-loss coil forms in the Hawk, using the new Hammarlund Isolantite material. The Hawk required three coils for operation, one for each stage in the set, and Gross advertised the coverage "from 17.5 to 110 meters." Additional coil forms, for those who preferred to wind their own, could be purchased for 58 cents.

The "Eagle", first introduced in the December 1932 *QST*, was positioned as a low cost option to the Hawk. Like the Hawk, it also used three tubes, type 232 for the RF and detector circuits, and a type 233 for the audio. The unit was small for the day, with the metal cabinet measuring 6" x 7" x 9 1/2", and was advertised by Gross as being suitable for "portable use". Like the Hawk, band coverage was



Here at last is a short wave receiver embodying features comparable to those in sets selling at a much higher price. Unusually flexible, designed for continuous short wave broadcast coverage or ham band spreading. Constructed of finest material available.

This Receiver was designed for the discriminate buyer desirous of purchasing the finest short wave receiver of its kind, and should not be compared with any of the "junk pile" selling at anywhere near the price of the "EAGLE."

Economical to operate. Employs the new 2-volt tubes which can be operated from two dry cells on the filaments for extended periods of time.

Although the "EAGLE" is the ideal amateur receiver incorporating such features as full band spread, etc. it is not limited to this purpose alone, but is also an unusually efficient short wave broadcast or police alarm receiver. While full dial coverage on each band can be had, the "EAGLE" may be adjusted to cover continuous range from approximately 15 to 200 meters. This is very easily done by controlling the tank condenser which is operated from the front of the panel.

**The Gross "EAGLE"—a new sensational 3-tube
S. W. Receiver**

\$11.95

*The only popular priced set having
the band spreading feature*

CHECK THESE FEATURES!

SCREEN GRID 232 R. F. and screen detector offering highest possible gain and most efficient regeneration.

PENTODE POWER AUDIO—234 gives more gain than obtained from two ordinary transformer coupled stages. Will operate speaker on most stations.

TANK CONDENSER—is operated from the front of panel and eliminates the objectionable necessity of lifting the cover. Speedy range changes at your finger tips. The **ADDITIONAL** condenser employed here gives much finer tuning than is possible with the ordinary large condenser.

BAND SPREADING CONDENSER—very small capacity permits widest calibration spread over a multitude of ranges. This feature gives you really two receivers for the price of one.

DIAL—Latest design, real vernier control over any position of the frequencies covered. Absolutely will not jump or slip—very rugged.

REGENERATION CONTROL—Employs condenser for stability, ruggedness and velvet-like smoothness, not noisy like resistances.

POWER CABLE—Eliminates possibility of wrong connections and insures absolute electrical contact.

CABINET—Size 6" x 7" x 9½", metal compact, hinged cover, crystallized finish. Completely shields the receiver. Also ideal for portable use.

RANGE 15 to 200 meters—4 plug-in coils are supplied with each receiver.

The "EAGLE" completely wired and tested. Price. **\$11.95**

Complete set of Tubes tested in receiver. **\$ 3.00**

GROSS RADIO, Inc.,

51 Vesey Street
Dept. S
New York City
Tel. Barclay 7-0161

Fig. 7. Gross "Eagle" ad in February 1934 *Short Wave Craft*

selected by four plug-in coil sets, the range being given as "15 to 200 meters" by Gross. Gross advertised an early form of "band spreading" by the use of a separate front panel mounted capacitor.

When first introduced, the Eagle was offered in kit form for only a brief time. Gross then warned that to duplicate the Eagle would cost "three or four dollars more than the completely wired and tested set." Later, perhaps in an effort to boost sales to those whom Gross termed as having "very limited means", the company lowered the assembled price down to \$10.95. While Gross only listed the Hawk for less than a year, the Eagle appears to have stayed with the company for nearly three years. First introduced in the winter of 1932, it last

appeared in print in October of 1935, a long run for a simple set. It may be the Eagle was simply pushed aside by the appearance of the new Hammarlund Super Pro and Hallicrafters Super-Skyrider sets, also sold by Gross.

These sets, along with the Gross transmitters, were adver-

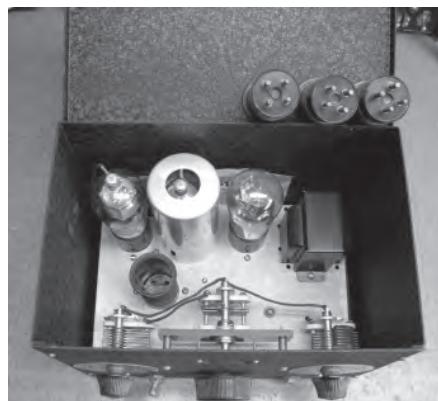


Fig. 8. Gross "Eagle", author's collection

tised in the back of *QST* for a number of years, no doubt inspiring the young ham to deliver many a newspaper, or mow many a lawn in order to spring for a new set. The Gross sets were unapologetically simple for the day, and while eclipsed by contemporary offerings of Collins, National and Hammarlund, they were affordable for the beginning radio amateur, an important consideration for that era.

THE CW/CB-25 TRANSMITTERS

Perhaps the best-known Gross product of the day was the CW-25 “Beginner’s Transmitter”. First introduced in February of 1934, the set was offered until March of 1937. Larger, high power sets, like the CW-50, CW-55 and CB-100 (50 and 100 watts of output respectively) were later available, but never reached the popularity of the 25 series. The CW-25 was offered as both a kit with one set of band coils for \$13.95 (less tubes), and fully wired and tested for \$14.95. The CW-25 was a simple, if not inexpensive, way for the radio newcomer to get on the air. While \$13 sounds cheap today, in 1931 it was a far stretch for the average radio amateur. Bill Orr W6SAI writes “In those dark days of the depression, however, this sum was equal to a week’s wages to some and was only a theoretical concept to the many unemployed.”

Still, the CW-25 was a great bargain to the average ham, offering 50 watts input, with about half that power output on the 160 and 80 meter bands, lowering a bit on 40 and 20 meters. A four band transmitter in one compact chassis, with what was considered good power output for its day, must have been pretty tempting

for the new ham. Gross also offered a power supply kit for the CW-25 for \$8.75, or 50 cents additional if wired. Plug-in coils for other bands were available at the cost of 75 cents per coil. The Gross used three coils per band, so for the total cost of \$27 one had a full four band set, complete with power supply.

The CB-25, the “B” standing for class B fone operation, was offered for the princely price of \$66 less tubes. Wired and tested units cost an additional \$10. With the CB-25, the proud owner received a small desktop rack to hold the chassis, a power supply deck with modulator circuit, and a metering panel. One could also buy these parts separately, if desired. In the Gross design, the rack stood about 24 inches tall, with the RF deck located at the top of the rack, and the power supply below. A metering panel, with two large Gross labeled Weston panel meters, was located directly below the RF deck.

THE CW/CB-25 RIG IN DETAIL

I am able to speak in some detail on the CB-25, as I am fortunate to have one in my hamshack (Fig. 9). Formerly owned by Bill Orr W6SAI, the unit was gifted to my friend John Rollins W1FPZ sometime in the late 1990s, with the provision that John could have the unit if he were to restore it and send photos to Bill.⁹ Needless to say, John was not about to let a deal like that go through his hands. He was prepared to fly out in his private plane to pick up the rig directly from Bill in San Francisco when fate intervened. A friend who had to make a cross-country journey stepped in, and offered to drive out to California and retrieve the rig for John. Soon

Gross Radio

the rig arrived back in John's workshop in Arrowsic, Maine where it underwent a full restoration, Rollins style.

Any correspondence between John and Bill seems to be lost with John's passing, but John never ceased to proudly point out the rig when showing a visitor his hamshack. I saw it during my many visits, ready to be switched on at any moment with authentic Gross coils for all bands neatly stacked atop the cabinet. After John's passing in March of 2008, the transmitter entered my care.

The CW/CB-25 was quite robustly built in the tradition of the day, starting with the steel chassis, finished with the classic black crackle paint. The three air variable capacitors featured prominently on the front panel were General Radio products, as were the dials, which were printed with the Gross lightening bolt logo. Such quality was surprising for a bargain kit of its day because General Radio was well known as a manufacturer of very high quality parts and equipment, hardly

what one would expect to find in an entry level amateur rig. Bill Orr W6SAI, writing in the February 1977 issue of *CQ* magazine, speculated that there were some \$30 worth of parts in the CW-25 and marveled how Gross could sell the complete set for a mere \$13.

Underneath the steel chassis the layout is a very traditional design. Straight-line heavy 12-gauge tinned wire was used for the ground and RF bus, and 14-gauge black insulated wire used elsewhere. A mixture of both ceramic and fiber sockets was used for the plug-in coils, vacuum tubes and electrical connections. Two air variable capacitors, equipped with "arrow instrument knobs", were mounted on the rear of the top chassis, and were used to neutralize the buffer and final stages.

Functionally, the CW-25 and its more expensive fone cousin, the CB-25, are quite identical on the RF decks; it is only in the power supply and modulator that the two differ. We'll start with the RF deck first as it is common to both models, and discuss the CB-25 power supply deck later.

The RF circuit of the CW/CB-25 was based on the then popular type "46" tube, and the design was often referred to as the "46 job". Starting from right to left on the RF chassis, a type "47" tube was used as a crystal oscillator as it would easily run on 160, 80, or 40 meter crystals. The 47 was originally designed as an audio pentode, but would provide decent RF output at 300 volts in a crystal oscillator. Output of the 47 went to a type 46 used as a buffer stage, which was then neutralized for a vertically mounted capacitor located almost directly behind the tube. The buffer output was then directed into a pair of type

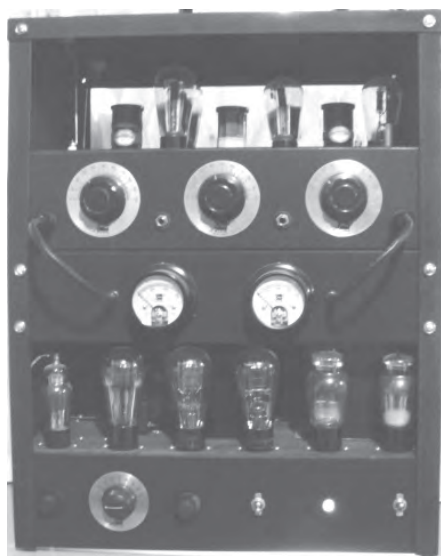


Fig. 9. Gross CB-25 transmitter, author's collection.

46 tubes in a parallel amplifier arrangement, with another vertically mounted capacitor for neutralization. A plug-in coil was used for each stage, oscillator, buffer and output, hence the need for three sets of coils per band. The crystal holder was mounted on the right front of the top panel, in easy reach of the user, and Gross sold both the crystal holder and blank (you ground your own crystal in those days) for one dollar each.

During the tune up process, one used either an external meter, plugged into the jacks on the front panel of the RF deck, or the tried and true light bulb with an inductive loop of wire. Each stage was loaded and tuned to resonance, with the one caveat being that the phone jacks, insulated from ground, were hot with plate voltage! The CW/CB-25, like most sets of the day, was designed for a high impedance balanced antenna, so the link coupled output, again via a plug-in coil, went directly to a set of porcelain insulators on top of the chassis.

The modulator circuit on the CB-25 is a classic design that appears to have been taken straight from the early ARRL handbooks. A type "57" tube was used as the first gain stage in the speech amp, driving a single type 46 tube. The output of the single 46 was then sent into a pair of type 46 tubes in push pull, which drove the modulation transformer. Gross had designed the set for use with a carbon microphone, so the resulting audio was anything but "hi-fi". Still the set did work, and offered a moderately priced entry into the fone band. A pair of type "83" mercury vapor rectifiers completed the rest of the tube complement on the power deck.

Connection between the two chassis was via a cable running

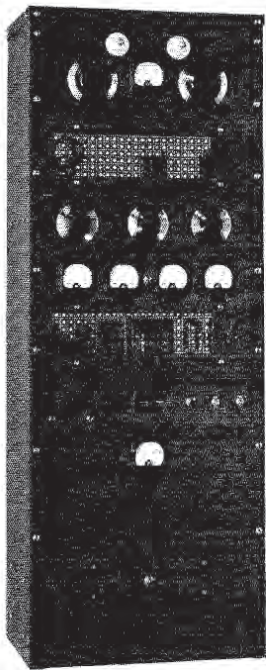
from the power supply to the jack on the rear of the RF deck. A set of "wander" leads were used on the front panel meters to switch in, measure and tune the various stages of the transmitter. A lower power meter on the right was used with the oscillator and buffer sections, with the higher power meter on the left measuring the 46 RF amplifiers wired in parallel. Keying was made via the front panel jacks, and a set of insulated dummy plugs was used to block the following sections when tuning.

Contrasted with the Collins 32B rig, selling at \$125, the Gross rig was a bargain. Sadly, it appears that few of the CW/CB-25 series survive today. It is unknown if this was the result of poor sales or just the ravages of time.

THE GROSS HIGH POWER SETS

During the long run of the CW/CB-25 series, Gross also introduced some new and higher power transmitter sets. Still following the Gross nomenclature of CW and CB, with the input power following as digits, these units employed the newer high power tubes that were being introduced into the amateur market.

The top of the Gross transmitter line appears to have been the short lived CB-350, which used a pair of Taylor T55s in the RF output (Fig. 10). In the modulator, a pair of RK31s, in class B, was used to develop "100% modulation". Gross claimed the CB-350 had an input power of "350-400 watts", but did not list the output. Band coverage for the unit was stated to be 1.7 to 30 Mc, again, via plug-in coils. The design, a rack system, was interesting in that it included the antenna tuner in the top of the

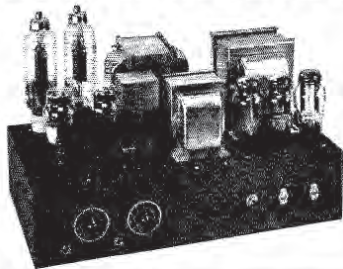


Bulletin upon Request Giving Full Details and Amazingly Low Price

NEW!! GROSS CB-350 RADIOPHONE TRANSMITTER

More and more operators are realizing that only in a GROSS Transmitter can they obtain APPEARANCE, QUALITY, PERFORMANCE and VALUE such as they receive in the CB-350. A really high power phone at an *Amazingly low price*. Truly the "more watts per dollar" slogan takes on a new significance.

- R.F. TUBE LINE UP — 6L6G crystal oscillator, buffer or doubler one T55, class C amplifier two T55s
- POWER SUPPLIES — 1400-1500 volts at 300 M.A. 700 volts at 200 M.A.
- SPEECH AMPLIFIER — Four stage high gain for use with high impedance microphones, self contained power supply
- MODULATOR — Two RK31s are used in the class B modulator. 100% modulation, separate heavy duty power supply
- ANTENNA UNIT — Self contained antenna tuning unit included
- FREQUENCY COVERAGE — 1.7 Mc. 3.5, 7, 14 and 30 M.A.
- POWER — 350 to 400 watts input
- CABINET — Beautifully finished in battleship gray wrinkle lacquer



NEW! BM-100 CLASS B 100 WATT MODULATOR

TUBE LINEUP: 3-6C5, 1-6N7, 2-6A3, 2-1Z20, 3-83.

INPUTS: One High and One Low Level High Impedance Input.

The BM-100 Class B Modulator Speech Amplifier will modulate 100% transmitters with inputs up to and including 230 watts input. ■ The unit is completely self contained on the one chassis and includes high gain Speech Amplifier and Dual heavy duty Power Supply. ■ The class B output transformer will match R.F. loads of 3300, 4400, 5000, 5880 ohms. ■ Chassis size: 19" x 11 x 4 1/2. Weight 70 lbs. ■ BM-200 Modulator used in CB-350 Radiophone Transmitter is here illustrated, the BM-100 is very similar in appearance.

Completely wired and tested in our laboratory, less tubes..... **\$59.00**

Matched set of tubes..... **\$12.50**

WRITE FOR FREE NEW CATALOG ON HAM AND P. A. EQUIPMENT

20% DEPOSIT WITH ALL C. O. D. ORDERS
REMIT BY M. O. INCLUDE POSTAGE
Cable Address: GROSSINC

GROSS RADIO, INC., 51 VESEY STREET, NEW YORK CITY

Say You Saw It in QST — It Identifies You and Helps QST

Fig. 10. Gross Radio ad in QST, November, 1937.

rack. Metering was also extensive; I counted a total of eight meters on the set, including what appears to be a set of amp meters in each

leg of the RF output. I've only found one mention of this set, from November of 1937, so it appears to have not found commer-

cial success, perhaps not a surprise given the high cost of such a set and economic conditions prevailing at the time.

In terms of duration, the longest running high power Gross set appears to have been the "CB-250". The CB-250 was a CW and class B fone set with a power input of 250 watts that covered, via plug-in coils, the 1.7 to 30 Mc bands. The transmitter used a pair of Taylor TZ40s in both the modulator and RF output section. This set, first introduced in September of 1938, was offered until the last *QST* ad in 1941.

Interestingly enough, Gross seems to have never listed a price for the larger, high power sets. I suspect this was because these sets, costly as they would be, were built to order rather than on "spec". The exception to this pricing policy seems to have only been in the last days of Gross radio, when the "Clearance Sale" ads were running.

WINDING DOWN

Be it the Second World War, or perhaps just a downturn in business, the October 1938 *QST* carried a very different ad from Gross. Rather than his usual by-line touting the features and benefits of his latest sets, Jerry chose to share an unusual message with *QST*'s readers. "Opportunity" screamed the headline "To Purchase At Bargain Price," "A long-established retail radio store."

Perhaps Jerry decided to enter into supplying the wartime need for communications gear, for the ad also read "This sacrifice is made because our full time will be devoted exclusively to manufacturing." Or perhaps Jerry saw the clouds of war, and with it the ban on all amateur radio transmissions. In any case, after the "Op-

portunity" ad, Gross only placed a total of nine more ads before they were gone forever from the pages of *QST*. Each ad was progressively smaller than his early full-page spreads, and the final ad, appearing in February 1941 *QST*, advertised a "Clearance Sale" on all "Well Known Gross Transmitters" (Fig. 12).

THE MYSTERIOUS LEGACY

So where did Jerry Gross go, and what happened to Gross Radio Company? At this point, I really don't know, for it seems that our story ends here. In the process of researching this article I contacted Leeds Radio, Jerry's former employer, searched the *New York Times*, and employed the kind services of a friend, Bob Ballantine W8SU. Bob seems to have discovered that Jerry was born in 1898 and passed away in November of 1973.

The last mention I found of the Gross Radio Company was in the February 23, 1945 issue of the *New York Times*, which reported a landlord dispute between Gross Radio and the building's owners. In part, the article read "two workers from the Gross Radio Company hiked six floors to an equally cold and damp shop at 8



Fig. 11. Gross Radio ad in *QST*, October, 1938.

Gross Radio

CLEARANCE SALE!!
WELL KNOWN GROSS TRANSMITTERS
Completely Wired and Tested

95 WATTS C.W.....	\$ 64
95 WATTS PHONE & C.W...	110
150 WATTS PHONE & C.W...	200
250 WATTS PHONE & C.W...	295

Descriptive Bulletin on Request

2½ METER TRANSCEIVERS
ABBOTT DK-2 .. \$16.50
Portable Battery operated. Price is less Tubes and Batteries

ABBOTT MRT-3 .. \$28.20
HI-POWER—20 WATTS
For Mobile or Fixed Station. Price is less Tubes and Power Supply

GROSS RADIO INC.
51 Vesey Street New York City

Fig. 12. Gross Radio's last ad in *QST*, February, 1941.

West Eighteen Street to help meet another Navy contract.”

Apparently the owners of the building had shut off the heat and elevators in the structure on Washington's Birthday. Gross, under pressure to fulfill the contract, had unsuccessfully implored the Navy to have the building's owners turn the utilities back on. The article further mentions that the Gross Company had “seven employees”, but only two felt “hardy enough” to work without heat and elevators. So perhaps Jerry did get his wish after all, Gross Radio may have successfully made the transition from the ham to the military world.

You'll note that I have relied heavily upon *QST* magazine in reconstructing the history of Jerry Gross's companies. The reason for this is simply that little information remains other than product sheets, ads, and schematics. Even more rare than printed ephemera is the actual Gross produced equipment. For a company that had nearly a 20 year run in the radio business, and consistently placed large monthly ads in *QST*, it is rather surprising how few of

Jerry's creations remain. Raymond Moore, in his excellent “Transmitters” book¹⁰, devotes no less than seven pages to the Gross Company, and notes that Gross was “one of the major amateur transmitter manufacturers of the 1930's.” Admittedly many of the early kits were rather simple, and undoubtedly in the ham tradition of the day, were later disassembled for parts as the amateur advanced in the hobby or technology moved forward.

If you have any additional information or recollections, or if you own Gross gear, then I'd very much enjoy hearing from you. I would be especially interested in anything that can help clear up the mystery of what happened to this great piece of American radio history.

END NOTES

1. While 1931 appears to be first year for what was known as the Gross Radio Company, it is quite possible Jerry Gross had been in partnership in an earlier firm, the name “J. Gross & Co.” would seem to indicate the latter.
2. *QST*, August 1927.
3. Park Place was a rather interesting address for a budding radio manufacturer. During the early 1930s, Hugo Gernsback, of Gernsback Publications, famous for his own radio business, The Electro Importing Company (later known as EICO), as well the *Radio Craft*, *Short Wave Craft*, and *Radio News* magazines, maintained editorial offices right down the street at 99 Park Place.
4. *QST*, April 1927, Teleplex company ad. Bill Pierpont N0HFF also made note of the Teleplex company in his work “The Art & Skill Of Radio Telegraphy”.
5. A check of Google Street View seems to confirm this hypothesis; 323 East 83rd Street is a multilevel

residential apartment building. New York City tax rolls list the building as co-op apartments, and the build date is given as 1910. However, it is possible that the ground floor may have been commercial space.

6. *QST*, October 1929.
7. *QST*, October 1931.
8. "Transmitters I Wish I Owned" by Bill Orr W6SAI, page 34, *CQ*, February 1997.
9. *AWA Old Timer's Bulletin*, February 1998, "Restoration Of A Gross Company Transmitter" by John Rollins W1FPZ, pages 26-28.
10. Raymond S. Moore, "Transmitters, Exciters and Power Amplifiers 1930-1980". Key Largo, FL: RSM Communications, 1996.

ACKNOWLEDGEMENTS

John Rollins W1FPZ - For his kindness and generosity, he was truly one of the great gentlemen of radio.

Tim Walker W1GIG - Tim patiently and diligently copied and forwarded over records, notes and information from the Rollins estate.

Rob West KC8DDH - For his editorial review, suggestions, and help in filling in the blanks of the Gross Radio Company.

Nancy Strunk - For her editorial assistance, review, encouragement and wisdom.

This article was peer reviewed.



ABOUT THE AUTHOR

Bruce J. Howes, W1UJR, was born and raised in the southern tier of New York State, into a family well known for a fascination with mechanical devices. His grandfather was a welder, business owner, and International truck dealer, while his father ran a construction equipment repair facility in Okinawa during the Korean War. So it was no surprise that Bruce grew up tinkering with machines and old radios. What became a hobby as a young man quickly escalated into a profession. Calling himself a "serial entrepreneur", Bruce is on his third business venture, two in the automotive field, straddling a brief stint in a marine electronics company.

Bruce's passion for radio began at a young age as he would stay up late hours to listen in to station WBZ on his parent's old RCA tube receiver. The radio bug bit deep and he became a shortwave listener at age 12, progressing to extra class radio amateur in his early thirties. Bruce is a Life Member of the American Radio Relay League, and a Life Member of the Antique Wireless Association.

After selling his business in Buffalo, NY in 2000, Bruce now lives in Maine where he jokes to have opened another business in 2003 to support his radio and sailing hobbies. In appreciation for all things old, he resides in a 1860's home built for a Maine sea captain. His library, radio shack and repair bench are located in a somewhat newer structure on the property, of the 1920s vintage, affectionately known as the radio barn.

Bruce likes to say that he has regressed in the radio hobby, first starting out with amateur satel-

Gross Radio

lites, building a fully automated digital satellite ground station. His current fascination is with early 1900s radio apparatus, with a primary interest in the preservation and operation of vacuum tube ham gear from the 1920s to the 1940s.

Much of his radio time is spent in the documentation and restoration of such gear. Early prewar gear, especially home brew, holds a special place in his heart, and he has never been able to say no to anything with black crackle paint and vacuum tubes. He hosts a website of his efforts, www.W1UJR.net, with a popular subsection entitled "Bruce's Bench" where his latest projects and restorations are posted. In his spare time Bruce enjoys sailing, wooden boats, nautical history, and perusing dusty, old bookstores and antique shops along the Maine coast.



Bruce J. Howes