



In Memory of my grandfather
George Uzmann
Who dedicated his life to the developing world of radio

This is the story of the Original Transmitter of WOR radio

***The following story was written by George Uzmann who wrote
the radio section for the New York Sun in 1929.***

***A note from the editorial department reads” please hold till
our situation clears up”***

***I found this among some of his many personal letters and articles
from that time period. I believe that this paper will be
of some interest to those who enjoy the history of the radio today.***

Cliff Uzmann

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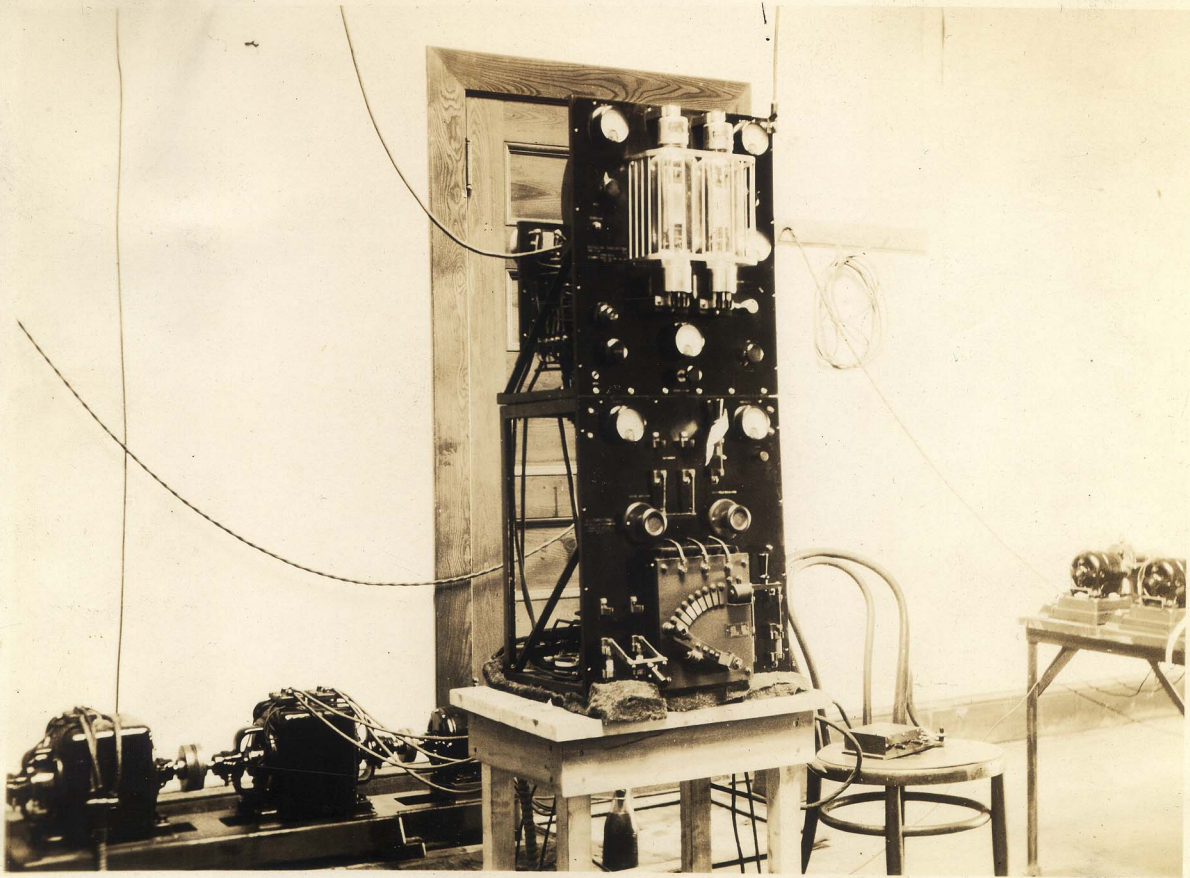
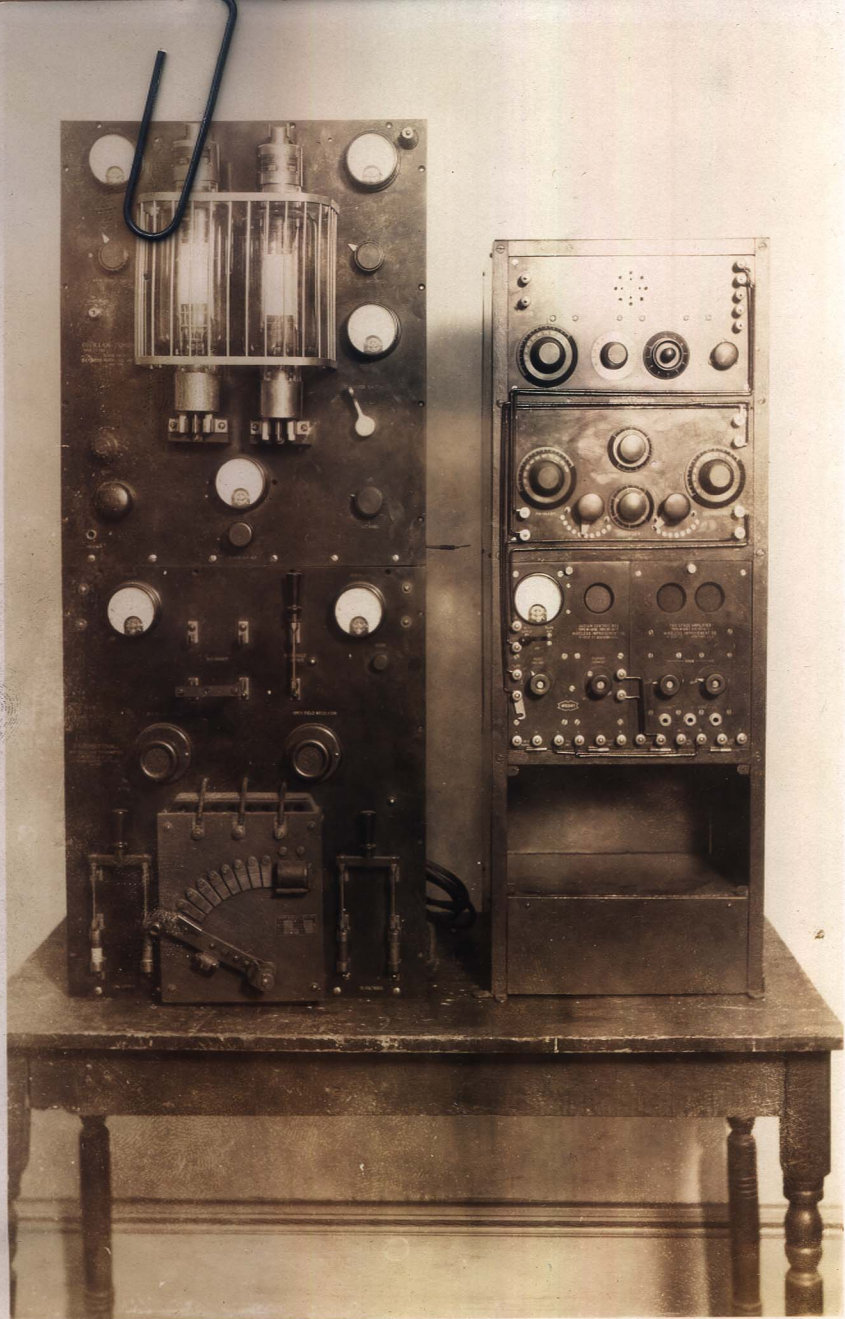


Fig. 1.

W O R's Original Transmitter Equipment.

*Reston Kent
G.H.*



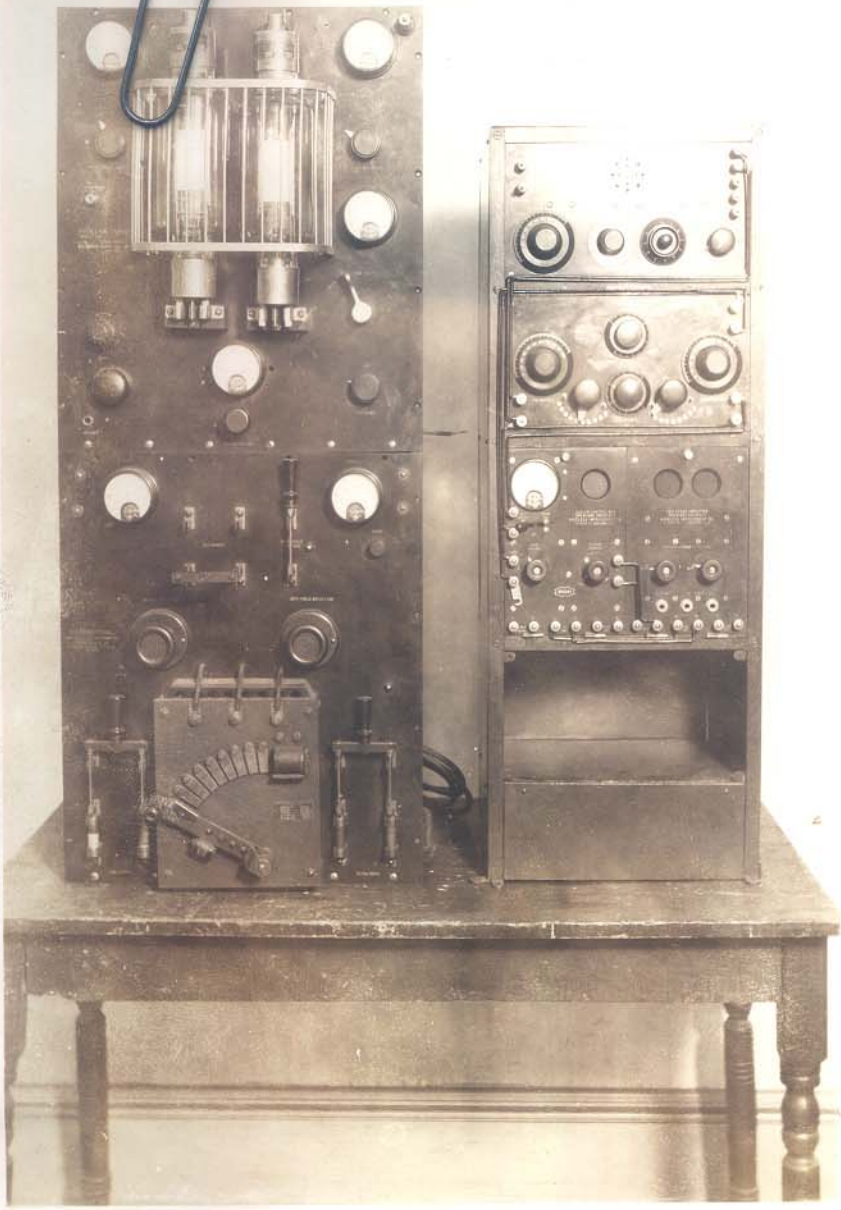


Fig. 2.

Another View of Transmitter. Compare Its Size to Receiving Apparatus.

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W O R'S FIRST TRANSMITTER

BY

J. GEORGE UZMANN.

J. GEO. UZMANN

Lounging away in my easy chair and smoking, as usual, while listening to the evening's radio productions, I stopped a while to enjoy a W O R feature. Shortly before midnight on Washington's Birthday an announcement was made to the effect that W O R would hold an informal birthday party in recognition of the entry of that station's eighth year of broadcasting. The listening invitation proved intriguing, and I settled back to a comfortable position to enjoy it.

W O R, like old W J Z, together with the principal transmitters within the Metropolitan area, I well remember back to the first days of their operation.. As I look backwards to the original tests conducted on the low powered W J Z transmitter installed in the Westinghouse E. & M. Co. Newark plant, while their engineers endeavored to let a favored few hear results of the Dempsey-Carpentier fight in Boyle's Thirty Acres back in 1920; and then to think of the rapid strides since made, is to know that these few years have spelled a radio life-time.

And so it goes with W O R, too. Mr. J. Poppelle, chief engineer of W O R, pointed out during their birthday party, that the station originally went into operation with a transmitter such as today might be considered a mere playtoy. He briefly mentioned that it consisted of two 250 watt tubes; and a reception report saying that their signals were heard in Connecticut brought untold joy to the staff.

"The Old Transmitter" story provided interest to the writer, for he too coaxed the "old brute" along many a night in effort that its

transmitted signals might be heard at distant points. And with this thought in mind let us look over the historical background of the first W O R transmitter.

Today W O R operates a standard five K. W. Western Electric Company transmitter. Its signals frequently carry to all ends of the country while a friend of the writer's generally reports good reception as far East as the English Channel. The quality of transmission is likewise of the highest character and perhaps only a few transmitters such as the new ⁵⁰ fifty K. W. Gros~~ley~~^{ley} and ^{3XN} three ~~W~~^W. Bell Laboratory, ^{WHIPANY} Whoping, N.J. stations, which employ so called 100% modulation systems, are theoretically capable of producing better quality.

The present W O R installation is the third transmitter, if the writer is not mistaken, employed by that station. The first one was ~~a~~ ^{OF} 500 watt rating, but ratings back in those days meant little. The second consisted of a standard 500 watt Western Electric set which was operated for several years until its present five K. W. equipment was installed at Kearney, N. J.

Now let us go back to the original transmitter and compare that little "bundle of junk" with present day apparatus. Of course, the complexity of broadcast transmitters has gone through the same growing pains as ~~the~~ receiving equipment. Once a crystal or single tube receiver together with a pair of head phones made up a "set" -- now think of our present day broadcast receivers with their six to ten tubes, their complicated circuits, etc. and we have a picture of the rapid strides radio has made in less than a decade. But let's not get away from our W O R story.

While W O R was one of the very first stations within the New York City district to transmit, I do not recall ever seeing a photograph or other descriptive matter covering their first transmitter. And since

Mr. Poppelle rightly mentioned its atrocious quality of transmission, the writer feels that the following remarks may prove interesting reading material.

For the first year or two of broadcasting, commercially built sets could not ordinarily be obtained before the Western Electric Company developed a 500 watt unit. The DeForest Company, on the other hand, manufactured several experimental models and it was one of these that made up the early W O R transmitter. It continued in operation until their half K. W. Western Electric set was installed. The new transmitter completely overshadowed the old in quality of transmission, distance, etc. "The old set" was then sold for what it would bring and it brought plenty even back in those early days.

FIG. 1

In ~~figure one~~ we see what the original W O R transmitter looked like. The photo shows its utter simplicity, and is complete with the exception of the microphones. A few weeks after going off the air on W O R's wave -- 360 meters -- it was purchased by the International News Service and again placed in operation, not as a voice transmitter but for telegraphic code signal work. Its day as a broadcaster finished up with W O R; but for a considerable time afterwards the writer employed the same transmitter in conjunction with development work and for which purposes it gave good results.

Re-installed at 59th Street and Broadway, New York City, the photo shows how simple the apparatus of a "modern" broadcast transmitter was back in 1921. This early DeForest Company development employed two 250 watt transmitter tubes, which received plate and filament energy from the three unit motor generator, ~~as it is~~ seen in the background, developing 2000 volts D. C. for the ^{TUBE} ~~two~~ plates and 20 volts D. C. for the filaments.

To place the "plant" into operation, one need only close a supply . . . switch and pull up the manually controlled motor starter. Then the station

was "on the air" The little ^{CAM-BOX} ~~can box~~ seen on the chair ^{WAS} ~~is~~ the ~~present~~
^{PRESENT DAY} counterpart of a "control room" -- the two ^{CAM} ~~can~~ positions determined
which of the two microphones were in operation; or another adjustment
placed the set ~~so~~ as to adjust the circuit so that it would function
as a radio telegraph transmitter. You see from the photo that a so-
called "technical staff" was hardly necessary back eight years ago
because the circuits were most elementary ^{ORDER} ~~in nature~~. The panel was
about 24 x 60 inches; controls were few and a quick glance at the six
small meters told the story.

Compare this work with present day apparatus employing pick-
up equipment and amplifiers, line compensators or "pads", speech ampli-
fiers, monitors, oscillators, modulators and power amplifiers; now add
a number of motor generator sets, storage battery, power and supply
switchboards, and we again note the rapid advance made in the art in
less than ten years.

Once the old transmitter moved away from New York City and
was taken up to Yonkers. A close-up of the transmitter together with
an associated piece of apparatus is shown in ^{FIG. 2.} ~~figure two~~. But it soon
returned to New York City, where it remains today and is still in opera-
tion, good as the day it was built as a continuous wave transmitter
operating at a wave length ^{OF} ~~at~~ approximately 1100 meters and never again
shall it broadcast "this is station W O R, Newark, N. J."

(J. Geo. Uzmann,
439 - 78th Street,
Brooklyn, N. Y.)

March 1, 1929