

Early Cincinnati RADIO

1910 - - 1970



Compiled, Edited and Printed by

JOE M. RICE - W4RHZ

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There is an ancient legend which tells us that when a man first achieved a most notable deed he wished to explain to his tribe what he had done. As soon as he began to speak, however, he was smitten with dumbness, he lacked words, and sat down. Then there arose-according to the story- a masterless man, one who had taken no part in the action of his fellow, who had no special virtues, but afflicted-that is the phrase-with the magic of the necessary words. He saw, he told, he described the merits of the notable deed in such a fashion, we are assured, that the words "became alive and walked up and down in the hearts of all his hearers." Thereupon, the tribe seeing that the words were certainly alive, and fearing lest the man with the words would hand down untrue tales about them to their children, they took and killed him. But later they saw that the magic was in the words, not in the man.

*Kipling

March 7, 1973

To: Vernon (Red) Thornburgh -
 In the hopes that this book
 will evoke fond memories.
 "It's like whispers of everyone."
 You are one of the Early Pioneers
 in Cincy Radio. It was a pleasure
 to hear your voice over the airwaves
 again March 3 over WGUC. That
 "stinking" black cigar that never
 stayed lit! - Harry Hartman - The
 Stubby "Bear Cat" too! So now an
 Era has come and gone! It's like
 Harry always said: "Going - Going...
 Gone -"

The author
 Joe Pico

ABOUT THE AUTHOR
Joseph M. Rice-Amateur W4RHZ



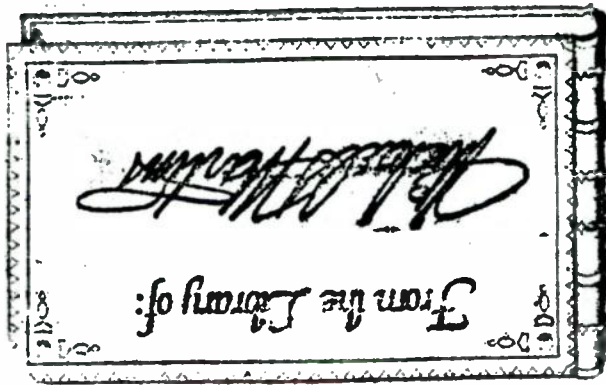
Joe Rice at the base
of broadcast antenna
tuning unit.

Born October 4th 1916 in Cincinnati, Ohio. Father, Joseph M. Rice, Mother Helen Rice, and grandfather was Joseph M. Rice. Born in Evanston, a suburb of Cincinnati. Moved to Norwood in 1923 to Sharpmoor Avenue. Attended Sharpsburg Grade School and Norwood High School. First licensed by FCC in June of 1934 as W8MFM.

Married Vivian I. Works October 1937. Three sons, Ronald, Gary, and William. Had liking for Music and Math in high school. Played trumpet in marching bands, orchestra, and several dance bands in the 30's. Was selected as one of the first 25 technicians to work on British RADAR just after Pearl Harbor and later as an instructor in radio at the old Ninth Street School in Cincinnati. Studio and transmitter engineer for WKRC, WCPO, WZIP, WNOP, WPTW, WCLU, WCIN, WMOH, and WCNW.

Served in Navy in World War II and one year in Ohio National Guard. Nominated for "Edison Award" for public service work in 1962 and received plaque for first Cincinnati "Hall Of Fame" award in 1969. Recipient of 23 certificates from the American Radio Relay league for public service awards for participating in relief work during tornados, floods, earthquakes, etc. Twenty certificates for participation in Armed Forces Day for perfect copy of the messages transmitted by the Secretary of Defense in Morse code at 25-words per minute. The "hall of Fame" award states: "For outstanding achievements and devotion to the art of Amateur Radio." Extra Class amateur radio license; First class radiotelephone license; Second class telegraph license with RADAR endorsement. Code copying ability certificates from ARRL at 35-WPM, and 40-WPM from Connecticut Wireless association. Has written several technical articles on broadcasting. Published book with new radio theories in 1971. Has patent pending on a system of stereo for the standard broadcast band.

Employed at numerous radio-service shops in the Cincinnati area. Worked at Crosley, Midwest radio, Ohio State Highway Department radio system, City of Cincinnati Police and Fire two-way radio systems, RCA tube manufacturing, several X-RAY companies in Covington and Cincinnati, built recording studios for commercial recording, sold radio parts, taught amateur radio classes, and in short worked at every phase of the electronic business for 35-years.



ACKNOWLEDGMENT

Without the help and encouragement of the Greater Cincinnati Amateur Radio association this book would not have been possible. Many of the radio-Amateurs were active in experimenting and developing radio apparatus long before the commercial interest made it a business venture.

A great deal of the material for this book was gleaned from old newspapers which were on microfilm in the Cincinnati Public Library. There were three principle newspapers from which I drew my material: The Cincinnati Post; Cincinnati Times-Star, and the Cincinnati Enquirer. It was from my own personal memory of past events which enabled my wife, Vivian, and our son, Bill, to gather the material after countless hours spent at the Library. I retained the original writings of the excellent reporting as much as possible. I regret that I cannot give individual credit to some of the writings due to hand-written notes. After all, 150 years of newspapers is a lot to look through.

I appreciate the Kentucky-Post newspaper file which they allowed me to look through. Most of the 1937 flood material was garnered from this paper.

I wish to thank the American Radio Relay League for allowing me to use some material from their book "200-METERS AND DOWN" written by Clinton B. Desota and for the material in the book "THEY BUILT A CITY" written by the WPA in 1938. My thanks also to the publishers Grosset & Dunlap for the use of their material written by Brock Brower from the book "A PICTORIAL HISTORY OF RADIO" written by Irving Settel.

The WZIP story would not be in this book if it were not for the help of Mrs. Arthur (Carmen) Eilerman and the generous loan of her file of notes and writings.

My thanks to CBS for their help and to NBC. I appreciate the notes from WLAP and WHAS the Kentucky radio stations and the cooperation of all the radio stations in the Cincinnati area. Persons involved in the many writings in this book are given credit where their writings occur. The help of John Slade of the Fort Hamilton Broadcasting Company(WMOH) has been inestimable. Thanks also to the Cincinnati Historical Society and their library in Eden Park.

Tremendous help was given by Henry Kuhn, W8ERG, to simplify the chapter on receivers. The chapter on Government Regulation was supplied by the Federal Communications Commission.

Everyone cooperated in compiling this history in some manner. Hundreds of persons gave me ideas in their conversation with me. Without all these people I am sure this book would not have been possible.

The Author

Joe Rice

FOREWORD

In writing a book of this nature, where there is no true beginning, nor is there a reasonable ending, it can only reflect my personal viewpoint taken from the events which have occurred over the past fifty or so years.

It was the result of many persons, over centuries, that resulted in this field called Radiobroadcasting. In its humble origins in the mind of man-at times inspired, at other times searching for truths of the nature of this earth, without coherence of effort, there finally emerged the nucleus of an idea. The miracle of it when you consider that for the first time man could hear sounds emitted from a distant point far in excess of human hearing!

As this year of 1970 is considered the 50th anniversary of radio, as we know it, if station KDKA in Pittsburgh made the first actual broadcasts in the year 1920. To be first there must be certain qualifications met. In the "World Almanac" it states that on the campus of the University of Wisconsin there was built a radio station using the call letters WHA. In their booklet "WHA-Radio pioneer" they state these qualifications for being first in the Nation: "Most claims to extreme old age are based upon human memory, scanty records, mighty legends, and very good publicity. So it has been with radio." To the earnest question of whose station is the oldest in the nation comes a many voiced reply "mine is". To judge which reply is to be favored with the lable of absolute truth, one must answer such questions as: Has the station been in continuous operation since the beginning? Has the station been licensed to the same party? Has the radio station remained in the same approximate location? Has it remained on the same frequency? Even if one could decide that these questions are relevant, the most controversial puzzles still remain. When does an experiment become a broadcast? What do the words "regularly Scheduled" mean? These questions must be answered first.

Since so much concerning the beginnings of American Broadcasting is obscure, the answer to our initial question has become a matter of pride and of choosing sides. The marvel that is radio began as the enterprise of numerous experimenters in bedrooms, attics, shacks, and rooftop laboratories. This is so stated in the history of WHA radio station.

In the greater Cincinnati area most of the history is not so obscure. From various sources, such as radio amateurs, who were the true explorers, emerges many dates and facts.

It is hoped that these writings will disclose all the facts in order that a deeper insight into the origins of radio stations will be handed down to other generations.

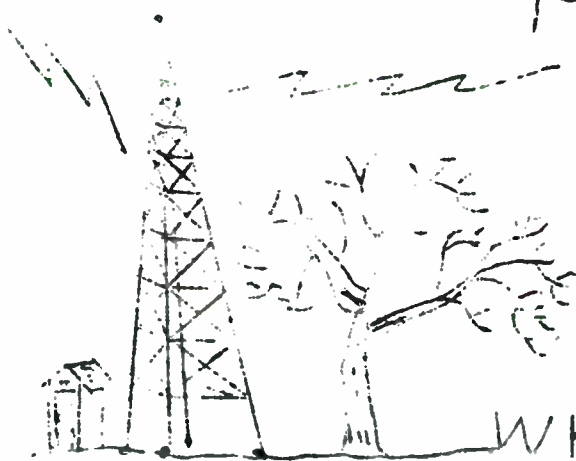
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EARLY CINCINNATI RADIO

1910-1970



WBAI

WCKY

WKDU

WLW

WMH

WKRC

WNOF WZIP

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This is the second printing and is
essentially the same printing as the 1st
printing except for minor spelling
corrections.

There are 92 original manuscripts
produced and sold. This printing consists
of 200-copies.

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BUILDING A CITY

"Long before radio was ever thought of-in fact, one-hundred years ago-the Ohio River wound a mysterious way into the green country far beyond the great wall of the Alleghenies. And man, with a foothold on the Atlantic Coast pressed against the wall, peered over into the wilds, and wondered."

"The Revolution was over and they were tired. Many were bankrupt, many oppressed, many restless. Over the wall was a new adventure, a new land, a new freedom. They listened to exciting stories of traders, to highly colored accounts of land agents, to the eulogies of aesthetic souls delighted by the Ohio country. They decided to gather their wives and children, pick up their belongings, and move on through fierce Indians-dire hazards of the journey-the terrible unknown. But their ancestors had braved the same dangers, and they were still not many generations removed from their first American ancestral stock. They started towards the wall, to go up and over. By pack-horse and ox-drawn covered wagon they pushed on, followed mud trails over slippery hills and through valleys that sent up the hills about them again in terrifying majesty, forded rivers and creeks, and reached Simrall's Ferry and Fort Pitt (Pittsburgh). Here the trail ended."

"The entrance to the West was a gateway of hills, through which the Ohio River rushed and turned, bent and rolled, on to the Mississippi and the Gulf. For weeks the men hammered together rafts and flatboats to carry their families and possessions over the waterway lining their old life with the new. It was in December of 1788 that a fleet of crafts, carrying 25-persons, some livestock, and some foodstuffs, slid into the Ohio's fast current and floated westward, past Marietta and Columbia, where, on the flatlands near the mouth of the Little Miami River, a blockhouse was going up. Then they saw a slim river, the Licking, going off to the south, and on the right the land ran up in terraces to a lovely sheltered-valley amongst tall hills, plenty of water, good soil, and open space-here was the place to spend their lives. After beaching their rafts and flatboats, they tore the vessels apart and clattered together the first crude homes in Losantiville."

"Cincinnati, as Losantiville came to be known, has come to maturity with a long experience of building up and breaking down. First, a frontier town was set up and the crops were sown. Next, banks were opened, minor manufacturing was encouraged to become greater, and the wharves on the water front were made increasingly important to the great Ohio River traffic. By 1860 Cincinnati was on its way to becoming the nation's third largest city, and one of the leading gateways of northern commerce to the south. For another 40-years the swelling tide of commerce and industry continued to force the city's boundaries far back into the hills. At the turn of the century Cincinnati dreamed of becoming a center of automotive production, but this industry was attracted to cities closer to the sources of steel and coal. In its place arose the highly complex, scientifically developed machine tool industry. The financial collapse of 1929 was only a temporary halt to this gigantic industrial growth. Cincinnati has now (1938) resumed her work, fresh with a new faith in the

future years. The Losantiville pioneers put seeds in the land watched the crops grow. Occasionally they chased Indian snipers from the hills. Then, about 1800, they found that they were near coal, iron, wood, and limestone, and they turned slowly from agriculture to manufacturing. As early as 1791 the first horse-powered grist mill was proudly built, but, because everybody needed meal, it rarely managed to grind sufficient grain. In 20-years the application of steam brought rest to horses weary of the treadmill, and a sudden surge of river commerce, emanating from pork-packing, distilling, and other manufacturers, began to shape Cincinnati into the "Porkopolis," Eastown, and "Floral City" of the 1840-1900 period.

During the first World-War, workers had left for the military during a period of prosperity; they returned to find industry furloughing workers. This condition led to considerable unrest; through it all ran the resentment towards employers for failure to hire the returning workers who had gone to save the world for democracy."

Such was the condition of Cincinnati in 1920. Beginning in 1921, the automotive trades, and Radio broadcasting, and radio manufacturing, helped break this post-war recession, In soaring success they proved helpful to other units, especially steel production and transportation; and the pickup in commerce and trade was a spur to lagging industrial activity.

"And at this time broadcasting-the American system of radio broadcasting-was born. The leaders in the field of Amateur Radio had early recognized this radio trend, if not its danger. That this is true is evidenced by the fact that in middle 1921 they began calling the amateur radio art "Citizen Radio," rather than amateur radio. That the concert listener would grow in numbers, and that the competition for his attention on the part of Commercial broadcasting, backed by money and influence, was likely to become strong, was apparent to the A.R.R.L. If nothing else pointed to what was ahead, the growing demand for all radio publications(QST nearly doubled its circulation in one month) certainly made it manifest that a boom was just ahead.

The story of the development of radio broadcasting of course was preceded by amateur radio. Without amateur radio to pave the way by countless experiments, numerous circuits, etc., there would have been no radio as we know it today. The connection is far from abstract; the association is, in fact, fundamental. On November 2, 1920, Frank Conrad at his Amateur Radio station 8XK in Pittsburgh-it will be recalled that 8XK was one of the first successful Amateur C.W. stations-began the transmission of music instead of dots and dashes. From this station grew the present-day KDKA and the modern billion-dollar industry of broadcasting. Of course there had been musical transmissions before that time-Dr. Leo DeForest, inventor of the "Audion" had "Broadcasts" in 1910, and George Eltz and Frank King of the Radio Club of America had an "ARC" radio telephone in 1911 over which they played music for the benefit of the fleet in the Hudson River, and, indeed, the Detroit News claims the world's first broadcasting station, WWJ, which started up with a

small DeForest "Oscillion Radiophone" panel eleven weeks before Conrad's station-but it was to hear 8XK that persons who were not radio amateurs first purchased radio receivers. It was the Westinghouse Company, by whom Dr. Conrad was employed, that first realized this amazing state of affairs and determined to capitalize on it by manufacturing and marketing simple and inexpensive radio receivers. Several thousand were sold in the vicinity of Pittsburgh. To increase the market area, broadcast stations were erected at Chicago-KYW-and Springfield, Mass.-WBZ. Radio receiver merchandising boomed in each of these areas. The pioneer station which probably did most of all to lend impetus to broadcasting, however, was WJZ, established in late 1921. Serving the great New York City area, this station quickly aroused tremendous interest and played an important role in starting the broadcast boom. Other stations quickly followed. Radio amateurs commenced broadcasting phonograph records over their stations, to enthrall the growing audience. Newspapers put stations on the air. Large department stores and additional radio firms began broadcasting because of the advertising value."

Just a few years before America entered the First World-War engineers of the American Telephone & Telegraph Company made the first practical tests by talking to Paris, 3,700-miles away on July 28, 1915.

These demonstrations proved the practicability of radio telephony. Immediately energetic men rushed to develop broadcasting. In November of 1916 Dr. Lee DeForest opened an experimental radiophone station at High Bridge, New York. That same month another experimental radiotelephone experimental station 22K, New Rochelle, New York, began broadcasting music between 9 and 10 PM daily except Sunday. This station was heard by Cincinnatians.

"Even as it thickened the storm over Europe, the day of radio broadcasting arrived bright in America. But American industry was still faced with the problem of making receiving sets for a public anxious to hear the broadcasts of stations. Manufacturers quickly met the need, and soon the old-time crystal detector sets were marketed. The receiving apparatus was crude; sets were unable to pick up programs originating more than 10-miles away. But they were wonderful to the people who tried to hear the faint, often distorted, broadcasts of musical programs then aired at night by the several low-powered stations in existence."

"Although as early as 1911 a Cincinnati was licensed as an operator of wireless telegraphy, (the word radio had not been used in early days) Cincinnati's interests in the new radio was purely amateurish until 1919. This was due to the Government ban on all radio during World-War-one. This ban was lifted in July of 1919 and in that year the Precision Equipment Company established an experimental broadcasting station, using the call letters WMH, in a second-floor room of a building at 2437 Gilbert Avenue near Peebles Corner. Several retail stores selling electrical products began to stock the crystal-sets; and talkative people at social gatherings usually asked, "Did you hear station so-and-so last night?" This interest in radio

was noted carefully by the manufacturers. Early in 1920, less than six months after WMH went on the air, the first Cincinnati-made crystal sets were in use. The first regular broadcast of a National event came on November, 12, 1920, from KDKA, which sent out the returns of the Warren C. Harding-James M. Cox Presidential elections. Incidentally, both of these men were Ohioans, Governor and Senator respectively of Ohio.

"About the same time the particular fate who guides industry was weaving a pattern of events soon to give Cincinnati what now is the world's most powerful broadcasting station (1938). The young son of Powell Crosley, Jr., at that time a manufacturer of phonograph and automobile accessories, asked his father to buy a receiving set, and the older Crosley, in order to satisfy a boy's whim, went shopping. Learning that the cheapest apparatus costs \$130, far more than he wished to spend, Corsley made a compromise with the boy; he would build a set at home instead of buying one."

"While assembling this apparatus at a total cost of \$35, Crosley came upon the idea of manufacturing moderate-priced receiving sets. Intensive experimentation followed, and soon he was able to sell a complete detector apparatus for \$15. In 1921 Corsley began experimenting with radio broadcasting by operating Amateur station 8CR from the livingroom of his home. Later he transferred the station and transmitting equipment to his factory on Hamilton Avenue. In March of 1922 station WLW first sent its call letters into the countryside. Today (1938) with 500-thousand watts power, WLW is the most powerful broadcasting station in the world."

"Since radio had proved to be commercially feasible, improvements came thick and fast on the usual big American scale--so gigantic that David Sarnoff, President of the Radio Corporation of America, on June 15, 1936 avowed to the Federal Communications commission at Washington; "Measured by the advances made in other fields, radio in the last ten-years has lived a century. Perhaps it may crowd a thousand years into the next decade."

Beginning in 1922, progressive change in technical devices quickly made possible better reception of broadcasts. The phonograph loud speaker was adapted for use in receiving sets; condensers to prevent distortion by noise were contrived; and more effective means of selecting programs were produced. Establishment of Federal regulation which since 1934 was under the Federal Communications Commission--assigning regional channels virtually eliminated the "drowning out" of broadcast by high-power stations."

In 1926 the programs of another local station, WFBE (WCPO and now in 1971 WUBE) rode the airplanes. In 1925 WSAI was heard for the first time and in 1924 the second Cincinnati studio to use the call letters WMH (since 1925 WLRC) was founded; and in 1929 WCKY, Covington, Kentucky, went on the air."

As early as June 1923, when the first multiple hookup of stations for broadcasting purposes was successfully tried by WEAJ, New York, WGY, Schenectady, KDKA?Pittsburgh, and KYW, Chicago, a nation-wide network of stations was being promoted. But it was not

until the National Broadcasting Company was organized, November 1, 1926 with WEAJ and WJZ as key stations, that this plan was put into practice. Now the NBC(1938) operates two basic networks RED and Blue, linking together more than two-hundred stations. The reason for two operating networks under one company name is easiest to understand when looked upon from a potential sponsors point of view. Many lesser companies cannot afford the full national coverage to all the major cities. NBC could sell time at a lower rate by offering smaller coverage to those companies who desired them. The RED network covered all the large cities with powerful local coverage, and the BLUE covered the smaller cities with smaller powered stations. If a sponsor desired full coverage then all the cities were called in for this service. In Cincinnati WLW, WSAI, and WCKY carried NBC programs.

In telling the story of radio broadcasting in Cincinnati it must be realized that the story must be related to the whole world. Radio, as we know it today in 1970, had no one place of origin. It began long, long, ago in the minds of men who discovered basic scientific theories. Then later men were able to put these ideas to practical use and these men were called inventors. Exactly where man's thinking processes awoke, is anybody's guess. Within the bounds of reason it comes to mind some of the earliest history and this from the Book of "JOB" sheds light on the subject. My bible history book says "The Book of Job might be called an historical poem, that is, a poem based on an event that actually occurred." Find the answer for yourself as you read chapter 38.

"Can you lift up your voice to the clouds?
Can you send forth lightnings, that they may go,
and say to you, Here we are?
Who has put wisdom in the clouds?
Or given understanding to the mists?"

In 640 B.C. when Thales, of Miletus, observed that amber after being rubbed acquired the electric property of attracting straws. Centuries passed before the next discovery was made, In 1654 Robert Boyle, British scientist, learned that electric propulsion can take place in a vacuum. In 1725 Stephen Gray discovered the principle of conduction when he noticed that electricity could be carried for more than five-hundred feet along a hemp thread. During the ensuing years other discoveries stimulated further research in electrical phenomena. But as late as 1831, when Michael Faraday made possible the magneto and dynamo by formulating the laws of electromagnetic induction, practical methods for the control of the phenomenon were still unknown.

As I write this book it is difficult for me write in such a manner to portray events in such a way that they will indicate that not even the most far-seeing visionary would prophecy commercial broadcasting. The extent of the travel from such meagre beginnings to the multi-million dollar business it has become in 1970 is beyond comprehension. From simply playing phono music accompanied by stilted practitioners of the English language

dressed in full tuxedos speaking in tones reminiscent of Shakespearean actors to live concerts and announcers speaking as if they too were living in the same age as the listeners was an evolution in itself.

In separate writings of another book which will tell the history of technical progress which makes it not necessary to trace radio's development in this book.

It was Maxwell in 1864 who explained on a purely mathematical basis that it ought to be possible to establish electric waves in the ETHER. In 1888 Heinrich Hertz succeeded in carrying out Maxwell's suggestion, and not only produced electromagnetic waves by apparatus designed by himself, but succeeded in detecting their presence at some considerable distance from the sending station. Many other persons expanded upon these basic theories. One such man was Dr. Mahlon Loomis, a Washington D.C. dentist. The scene occurred on a mountain in West Virginia one summer day of 1865. Shades of Benjamin Franklin- a group of mature, bearded men were there engaged in the questionable activity of sending aloft a kite bearing on it a large square of fine copper gauze. Toward the earth trailed a slender copper strand. On another mountain, 18-miles away another kite, similarly laden, flew at the same elevation. At the base of one, Dr. Loomis opened the copper strand that connected through a galvanometer to a coil of wire buried in the earth- and another meter similarly connected to the other kite 18-miles away quivered when Dr. Loomis opened the first connection! To get the full impact of this classic experiment look at the fact: not only of the distance involved, but the fact that only natural static was used.

The first experiment of Hertz showed that radio energy could be propelled through space for a few feet. Then Dr. Loomis did it 18-miles away. From simple experiments like these grew the tremendous electronic industry in America. While acceptance of the feat of Dr. Loomis was never unanimous, it is generally construed as the THE FIRST SIGNAL TRANSMISSION through space, and the first aerial telegraph utilizing only natural static for operating power. Loomis labored until his death in 1886 to achieve popular recognition of his work; he experimented more, and experienced a staggering succession of setbacks, but never lost faith. The needed public recognition was never achieved. Yet he made one contribution for which, if for no other, he deserves to be recorded in history. The only part of his system which lives today is the aerial, which he himself named, and in the use of which he was first by twenty-years.

The earliest radio history telling the dawn of the art was best told in Clinton B. DeSoto's book "200-meters and down" printed by the American Radio Relay League in 1936. It is with their permission that I now quote this classic bit of history.

"The history of radio as we know it began with the twentieth century. Preceding its active development were centuries of evolution. Mankind labored through eons of time to develop the massive natural intelligence that underlies understanding of even the simplest principles employed in science and industry and art. In that sense, the amateur radio of today is the consequence of the entire development of civilization- an inevitable, inescapable product of natural law."

"Thales, in 600 B.C., discovered the peculiar properties of amber, from greek root was to be derived the word 'Electricity.' Pliny, and Pliny the younger, and others unwittingly utilized the properties of electric current in the days of Imperial Rome; but the term itself was

not to be invented until fifteen-hundred-years later, when Dr. William Gilbert took the word "electrum", or "amber", and derived "electric", referring to substances which attract. The actual word "electricity" first appeared 43-years after Gilbert's death, in Sir Richard Browne's Pseudodoxia Epidemica of 1646."

"The spectacular science of electricity did not fail to attract experimenters to its pursuit, and the next three centuries were to see the building up of an amazingly diversified theory and practice containing the most far-reaching ramifications. In the early decades of the nineteenth century an Englishman, Michael Faraday, discovered that a relationship existed between electromagnetism and light; he it was who first defined the laws of induction. In turn, in 1873, a Scotsman, James Clerk Maxwell, published a book on electricity and magnetism in which he promulgated the theory that all electric and magnetism phenomena could be reduced to motion in the form of waves in a mysterious substance which he called the "ETHER"; the term was adopted from the German philosopher Encke who used the word "ETHER" in 1829 while studying Pons' Comet, referring to a transparent and extremely sparse fluid supposed to fill celestial space. In 1886 a German, Heinrich Hertz, achieved the experimental certification of Maxwell's theories by discovering that a spark could be caused to jump across an air-gap between two wire ends, when another spark was caused in a circuit containing an induction coil and spark-gap."

"There are earlier dates than these, of course, and other names. As early as 1867 Maxwell, in his chair at the University of Edinburgh, had outlined certain of the basic elements of his theory. But even more immediate importance to the history of radio is that of the Dr. Loomis I had spoke of a few minutes ago. In that same category would contain the name of Nathan B. Stubblefield of Murray, Kentucky. It was he who had first put the human voice through this mysterious thing called ETHER almost 7-years before Marconi sent the Morse letter "S" across the Atlantic Ocean."

"Meanwhile numerous other experimenters were securing strange effects through induction, adjacent telephone and telegraph lines reacted mutually when there existed a strong enough field, Wild ideas sprang up briskly-names like Professor Trowbridge of Harvard, Alexander Graham Bell, Professor Oliver Lodge, Sir William H. Preece, Thomas A. Edison, A.W. Heaviside, Professor Hugh and Professor A.E. Dolbear, were linked with these effects. Some attempted to visualize a signalling system for the safety of ships at sea, other actually foresaw telegraphic communication. Preece and Heaviside, in particular, achieved inductive telegraphy over appreciable distances. None of these methods was ever found practical. Some of their inventors, notably Dolbear, suspected that something other than inductive effect was required to produce the results achieved; and in fact they must have unknowingly utilized something more than inductive effects where distances of more than a few miles were covered."

"But it remained for Hertz to establish, in theory-the principle of radiation, as opposed to mer induction-and so to point the way out of the labyrinth. Let us return, in brief recapitulation, to again emphasize the historic progression in

the development of the radio art: from Faraday the Englishman, to Maxwell the Scot, to Hertz the German."

"The debt that radio owes to Michael Faraday, genius born of an English blacksmith in 1791, is many-fold. He established the laws of magnetic induction, following this by building electric motors, generators, and transformers. He discovered alternating current. He evaluated the relative merits of different dielectrics used between condenser plates. But most important of all, he founded the electromagnetic theory of light. It was upon his work in this direction that the theories of the great Scotch mathematician, James Clerk Maxwell, were based. It was Maxwell who proved mathematically that Faraday's conceptions were tenable, and who added, along with its proof, the astounding assertion that electric and magnetic phenomena were identical with light-light consists in the transverse undulations of the same medium(ether) which is the cause of electric and magnetic phenomena. (from his Electricity and Magnetism.)"

"Five years after Maxwell's death the young German student, Heinrich Rudolf Hertz, attempted the theoretical justification of Maxwell's mathematical work. After some effort in this direction he turned to an attempt at experimental verification. His resultant discovery consisted of finding a means for detecting the electromagnetic waves after they had been transmitted across space-the now "historic", "resonator", or induction coil and spark-gap circuit. The evolution of the radio art burgeoned after publication of the result of Hertz' experiments in 1887. The manner of this evolution was in the true spirit of scientific research. At no point was there a sharp, visionary breaking into intelligence on the part of one man; there arose no inspirational genius who caused the whole art to vivify into sudden birth. Each man added a little to the common heap of knowledge, and slowly, decade after decade, century after century, it grew."

"Faraday...Maxwell...Hertz. Now for the next step in the progression."

"In 1894 a young Anglo-Italian by the name of Guglielmo Marconi came along and gather up the entire top of the heap of knowledge that had accumulated through twenty-five hundred years and put the devices he found there to practical work."

"On April 25, 1874, there had been born in Bologna of an Irish mother and an Italian father a child they had named Guglielmo. In his youth he studied at Leghorn Technical School, and early became a disciple of Professor Righi of the University of Bologna, who had for several years been an active experimenter with inductive telegraph. At the age of twenty, Marconi began experimenting with electric wave phenomena on his father's large estate just outside of Bologna. From that work grew the art of radio as we know it today. Marconi did not invent any new device. He simply adapted the inventions of many other men, eliminated some of their laboratory defects, and combined them into a workable communication system. He took Righi's version of the Hertzian oscillator and used it for his transmitter; he took the CHERER, which was a tube filled with metal filings with connecting plugs at each end-discovered by Hughes in 1878, then re-discovered by Branly-and used it for his receiver.. Later patenting it; but most important of all, he adopted modified versions of Loomis' aerial and radiated the electromagnetic

oscillations along the surface of the earth for increasingly greater distances.

In 1896 he took the entire system to England and there, on Salisbury Plain, he sent and received a wireless message over a distance of two miles. On June 2, 1896, he filed his patent application in the British Patent Office. In July his work was noticed by Sir William Preece, who became at once his ardent friend, admirer, and sponsor. All this combined to draw the attention of the scientific world.

"With somewhat understandable resentments and jealousy, these bearded scientists who had been working on the problem for years began to describe him as a charlatan. He had invented nothing new, they said; he had only used the devices they had invented, and with which everyone was familiar. Now, three years out of his teens, he who had played no part in their discovery offered these devices to the world of science and proposed to patent them. No wonder the scientists were shocked. Branly, in particular, keenly resented Marconi's patenting the coherer, which he regarded as his own invention. It is difficult to say just how much weight these accusations bear. In point of fact, Marconi's patents were based not so much on the individual devices as that he had combined them into a practicable communications system, the first workable application of the Hertzian waves. He first made all these devices utilitarian. Certainly Marconi was not the inventor of radio. Equally certainly, he was the father of radio, for it was his adaptation of the fruits of others' research (of the prior conception of which, in some cases at least, he may not have been aware) that resulted in the art of wireless communication and later of radio broadcasting."

"Meanwhile Marconi proceeded with his experiments. He increased his range, first to four miles. By the end of 1897 he had communicated between ships at sea ten miles apart. Space telegraphy was being definitely established as practical over short distances. In 1899 Marconi improved his receiver by utilizing Sir Oliver Lodge's device of inserting a transformer between the coherer and the aerial, and celebrated by bridging the English Channel, a distance of 32 miles, at the invitation of the French Government. In 1900 he came to realize the necessity for symmetry in the transmitting and receiving circuits, which represented an early form of syntony or tuning. Distances steadily increased. Finally, at the end of 1901, he was ready for the greatest test of all, spanning the Atlantic."

In 1901, there came to pass the incident that really brought about the widespread development of radio-and of all other branches of radio, for that matter. On December 6th, Marconi arrived from Europe at St. John's Newfoundland, with two assistants, and proceeded to erect the most advanced wireless receiving station of the time in the old barracks of Signal Hill, at the mouth of the harbor. On December 10th he sent up a huge hexagonal kite of bamboo and silk, nine feet long. The wind snapped the trailing wire and the kite drifted out to sea. The next attempt was a 14-foot hydrogen balloon; this, too, broke away and floated off into the fog. Finally, on December 12th, a kite was successfully sent aloft to four-hundred feet and held. Marconi cables his station at Poldhu, Cornwall, England, on the southwest tip of England, to

begin transmitting. With one assistant present he started listening for the signal-the pre-arranged code letter "S". The transmissions were to begin at 11:30 A.M. just before noontime. Marconi heard a repeated trio of buzzes in the head telephones...three dots...the letter "S!"

I add to this discussion the fact that all the early wireless work was done with spark, arc, or motor-generator type transmitters. These were known as damped-wave transmission because each emanation died out before the next wave came along. Modern continuous-wave, or CW, transmitters did not become common until the invention of the vacuum-tube by Lee DeForest. There were also older types called rotary spark gaps which gave a distinctive audio tone to the signal and there were generators called "Alexanderson Alternators" and several other schemes which would fall under the heading of damped-wave transmissions also. These older types of transmitters were not suited for voice or music modulation. Although there are records in Cincinnati that some persons did manage to put the human voice on the air-waves using these transmitters. The quality was terrible, but in other parts of the country early experimenters modulated with voice and these were heard by nearby ship operators who couldn't believe their ears. Some became frightened when they heard music over the air and simply wouldn't believe it at all. One operator in Cincinnati, George Hussey, in 1912 heard a voice come over his radio while he was working near the vicinity of ninth and Main streets. Turned out to be a movie projector operator who had found a method to put a carbon-mike in the arc lighting system of the movie projector to change the intensity of the arc and this produced varying radio waves in accordance with his voice frequencies. In those years to hear a human voice come through the "ether" was nothing short of a miracle.

When spark transmitters were king of the ether from 1910 to 1925 and the wavelengths used were from about 500 to 6000-meters. The range under 200-meters was allotted to radio amateurs as it was not considered good for radio. But the radio amateurs developed it into a wonderland of communication. From 200 to 600-meters was used for aeroplanes, 450 to 900-meters for ship radio, and 900 to 1500-meters for moderate land stations, and over 1500-meters for the largest land stations. The powers used were $\frac{1}{2}$ to $\frac{1}{2}$ KW for amateur and aeroplane sets. 1 to 10-KW for moderate sized land stations and up to 100-KW or more for the largest land station.

MILEAGE/POWER CHART FOR SPARK TRANSMITTERS

SPARK GAP	ANTENNA HEIGHT	COHERER ← DETECTOR → LIQUID
1/2 INCH	35- FEET	1/8 MILE
1- INCH	40-45 FEET	1/4 MILE
2- INCH	50- FEET	2 1/2 TO 3 1/2 MILES
4- INCH	75- FEET	10 MILES
6- INCH	100- FEET	15 MILES
10- INCH	150- FEET	50- MILES

These spark transmitters are now only of academic history. There is no doubt they served their purposes in olden days on shipboard and on land by the military and other government services. They were used up until about 1925 when they were outlawed by the commerce department because they tuned much too broadly and were superceded by the more efficient CW type using tubes. Although vacuum tubes were practical from 1908 they were not really used until 1919 or 1920 to any extent. Because all broadcasting in these early years was done on almost the same frequency by all stations the bedlam was chaotic, and with spark

transmitter also operating at the same time you can imagine what a time a receiving operator had in selecting the station he wished.

Because of the Ban on all types of transmitters during WWI years and the ban being in effect until July of 1919 this year becomes the real birthday of any broadcast station. It is on this point that WHI claims to be the oldest station in the nation. It was allowed to stay on the air during WWI because it was vital to transmit information to the Navy and this station using morse-code operated all through the war years. So the year 1919 becomes the real birthday of any broadcast station with the exception of WHI, the University of Wisconsin radio station. Intermittent tests and contacts were established prior to this date, but there could be no continuity of operation because of the almost five-year ban. The first real broadcasting station in Cincinnati is WMH which operated from 2437 Gilbert Avenue and was owned by the Precision Equipment Company. See story in later part of this book.

LEE DEFOREST-"FATHER OF RADIO"

No book on radio, in any country of the world, would be complete without a story of Lee DeForest. His title of "Doctor" and that of "Father of Radio" are not an ad-man's phrase. He had many inventions in his lifetime. None so important or so earthshaking as that of his three-element vacuum tube. There are those today who might say "If he hadn't invented the vacuum-tube someone else would have." It is extremely doubtful if this could be true. When you consider that "solid-state" devices were all that was known in 1900, it is conceivable that there even could be such a thing as no vacuum-tubes at all if it had not been for DeForest. Consider the type of detectors that were used at that time: Galena, Silicon, Iron Filings, and Iron Pyrite, are all solid state. Lee DeForest had reasoned that all other types of detectors had been tied except that of using heat. He pursued that in all his efforts. In 1903 when he was working in a small laboratory at 11 Thames Street, in lower Manhattan, he had the leisure and opportunity to resume his work in this direction. He used a bunsen burner, locating within the flame two platinum electrodes, one of which was connected through the telephone receiver to a dry battery, and thence to the other platinum electrode. He enriched the flame with sodium, or common salt. He made countless experiments with this heat phenomenon, and to prove definitely that the effect was not acoustic but electrical, he connected one of the flame electrodes to an antenna, the other to the ground, and actually obtained wireless signals from ships in New York Harbor.

DeForest was born of a poor Iowa minister and his mother was the daughter of a minister. In this environment he was reared, strict, discipline, humility, and thrift. His family moved to a small town in Alabama when he was very young. His father wanted him to enter a theological seminary, but he instead enrolled at Yale University.

There are those who say: "Oh, DeForest, all he did was to stick a grid into the Fleming valve!" That is the same as saying that the Wright Brothers flew just because they stuck a fan

on an old kite! If you were to study the works of Lee DeForest you will learn that his work had no relationship to that of Fleming who used the two-element vacuum tube first. Actually the idea of the diode, or two-element tube came from Edison and his noting that current flowed to a plate attached to the outside of an ordinary light bulb. Even the "Edison Effect", as this was called, had no bearing upon the work of DeForest. In fact, Lee could never understand why they associated his work with others. He said: "It has always been impossible for me to understand the confused idea, in the minds of some otherwise keen thinkers, that the audio differed from the Fleming Valve merely by the insertion of a third electrode therein. Without the use of the B-Battery the valve would be nothing but a rectifier with one too many electrodes. The employment of the local battery in the plate circuit is just as necessary as the elements to the success of the device as is the grid itself." He had thought of it as a relay with small amounts of signal coming in through a separate circuit and this would effect another local circuit and thus be amplified.

Lee DeForest had an assistant named C.D. Babcock and the person who did all his early glass-blowing was Henry Wallace McCandless of the firm of H.W. McCandless & Company who made miniature incandescent lamps at 67-69 Park Place in New York City.

In every Library in the United States you will find a book written by himself, Lee DeForest, and you can find out more about the true "Father Of Radio" through this source. His famous patent was patent No. 879 532, February 18, 1906. He called it "A Device for space telegraphy." He named it the "Audion" and today we have nicknamed it simply "Tube."

***** THE FIRST SHIP DISASTERS *****

In earlier chapters was told the story of radio as it was developed in the laboratories by all the early experimenters. From this melange came the idea that man could indeed communicate at greater distances than his natural voice and hearing ever allowed before.

It is to be noted that there were at least two historic uses of wireless before broadcasting began. Both involved ships in danger. One was the "Republic," and the other was the "Titanic." The impact of these two disasters compelled a closer scrutiny into the possible use of radio to avert such occurrence ever again. This need for communication at sea prompted the U.S. Government to enact legislation making it compulsory for any ship entering or leaving a U.S. Shipping center to carry wireless equipment and a licensed wireless operator aboard.

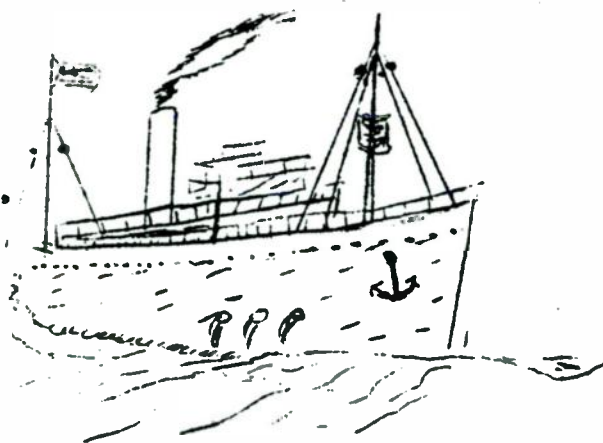
The story of the first sea rescue by radio is best told by the radio-operator himself, Jack Binns, who became a radio hero in the old days when radio was called wireless. Today, when you stop other activities, and think of how few disasters at sea you have ever read about, you will realize the wisdom of the early legislation making it necessary to use radio communication at sea. This aid to navigation has helped man to develop his sphere of influence around the earth and spread worldly goods as well as information to the four corners of the earth. I seriously doubt that anyone reading this can recall a sea disaster within their lifetime. The war years should not

13.
be counted, for the sinking of the Lusitania, for example, was not due to faulty navigation nor the "Luck O' The Sea". Radio saved the lives of thousands at sea that January of 1909. When radio did this, with Jack Binns at the telegraph key of the ship Republic, Americans began to feel that maybe this radio thing had something to it after all.

Jack Binns was born in Lincolnshire, England, in 1884. Early in his teens he became interested in the electrical sciences and attended the technical school of the Great Eastern Railway where he obtained a thorough grounding in electricity and learned the Morse telegraphic Code. About that time Marconi, having made his bow to the scientific world, was developing a company over in England. Binns made application for a position as operator and was quickly accepted. He became connected with the Belgian Marconi Company, and was sent to sea on a German ship.

About 1907 there was great agitation in Germany over the presence of foreign operators on board German vessels, and in June of 1908 Germany notified all ship companies that all the operators of foreign birth would have to be replaced by Germans by July of that year. Germany felt that in event of war these foreign operators on board German ships would undoubtedly refuse to notify the commander of the fact that war had broken out and consequently those ships would be captured by enemy cruisers. Binns was replaced, and after other jobs finally found himself aboard the steamship Republic as the radio operator. He later said: "It was four o'clock Saturday morning, January 23, 1909, and I was aboard the ship as the only wireless operator. The Republic was in command of Captain Inman Sealy, and had left New York for Liverpool at five-o'clock the evening before with 1,600-passengers. Almost immediately the ship ran into a thick fogbank, and the automatic foghorn was set going. I was kept busy at the telegraph key until midnight, sending and receiving commercial messages, and exchanging "location" reports with other ships and stations on shore until I turned into my bunk for the rest of the night. Like all ship operators I went to sleep with a more-or-less alert mind. All went well until 8-bells when I was suddenly awakened due to a noticeable change in the tone of our fog signals. I found myself sitting upright on the edge of my bunk listening very closely to the foghorn sounds. One second...two seconds...three seconds- a tremor ran throughout the ship. There was a terrific crashing noise. I rushed from my bunk into the operating room which was situated on the aft-port-side of the ship. I peered through the darkness and could make out, dimly, that a ship had collided with us. Crumpled up like the bellows of a concertina, the lower part of the colliding ship's bow had hit the Republic full and square in the engine compartment while the upper part, plowing its way through the cabins on the deck, hung over it, a menacing mountain of twisted steel. The roof of the wireless cabin had collapsed; part of the cabin itself was wrenched away. The big question; is the wireless gear working? The answer could be quickly found out because we used a system known as a "plain antennae system" which meant that unless the antenna was up and intact, and thoroughly insulated, it was impossible to get a spark out of the transmitter. I had just time enough to work the telegraph key to find out when all my lights, and electrical power, went out. All the machinery of the ship, including the generators, had been almost immediately put out of

commission. I changed over to battery operation and this limited my radio range to about 60-miles. I put of as many clothes as I could find, bundled an overcoat around me, and began sending "CQD". At that time this was the distress call. I did not know it then but I was on the edge of my radio-range. The nearest land station was at Nantucket Island, almost 60-miles away. The operator at Nantucket was Jack Irwin who had a very quite night, and had dozed off to sleep.



REPUBLIC

The scene of the radio drama which Jack Binns was the chief actor one exciting day in January of 1909.

His coal fire died down and presently he began to feel cold. He awoke with a start, and was just in the act of putting on more coal, jumped over to the key, and replied instantly. I told him that two vessels were in distress and that at the moment I did not know where we were. When I conveyed the information as to the damage and our position, Irwin immediately sent out a general distress call. The steamship "Baltic" of the White-Star Line was the first to answer the call.

A radio-operator's sense of hearing undoubtedly becomes more acute than another person who has never operated radio because of his constant training in trying to hear weak signals and straining his ears for faint code signals. It was this ability also the enable the rescue ship to find the sinking Republic in the dark. Radio signals go in all directions and it is impossible, at the time, to locate the source of those signals. By sending information as to the time that a bomb was to be fired, and to have all persons listen for it, and act accordingly, this hearing ability helped get the two ships within sight of one another. The final rescue occurred 480hours later and all persons were saved.

Meantime on the Island of Nantucket, the operator tells this story. "Nantucket Island, Massachusetts, had been described as an island without a country. It was not at first included in the United States, and the Mother country did not claim it either. But since the earliest days of wireless-now refined as radio-the wireless telegraph station at Siasconset, Nantucket Island, has been known to ship operators, and listening radio-amateurs, and that other scattering few of the public who just happened to know. Many famous messages have gone out from station "SC" later changed to "MSG". Many famous wireless men have pounded brass under the tall wooden masts on the picturesque little island. On January 23rd, 1909, I was on duty as operator at Siasconset, assigned to the midnight to 8. A.M.-watch. It was Friday night and there was very little business on the air. Few ships cleared from New York on the unlucky day. I relieved operator Jack Cowden who had informed me at midnight that there was only one ship, the Republic, to be heard from. She had been scheduled to sail from New York, at 10 A.M., Friday, and ordinarily should have communicated with us that evening. Realizing that there was only

one operator on board. I deduced that he had turned in by mid-night and that I would not hear from him until early in the morn. Events subsequently proved that the vessel did not leave New York until 3 p.m., and therefore the Republic was not within range of station "SC" when I relieved the watch. When I awoke to

replenish the fire I first heard CQD CQD...these distress signals were very weak considering the distance between us. Then Binns told me he was working off his storage batteries as the dynamo was under water. This accounted for the fact that no other ships could hear him as they were all out of range. It was our duty to copy his messages and again send them out so that all ships could get the information." Later Jack Irwin said, "During this 48-hour period it was very hectic. We were deluged with radiograms and telegrams. The news of the disaster had leaked out and the newspapers, shipowners, relative of passengers, were all demanding news from us. We gave the right of way to the ships involved. Between times we answered, as best we could, all the messages coming in for us over the land wires. We sent hourly bulletins to the newspapers, sent reassuring messages to relatives, and gave general information to the steamship line as to the progress of events. For 72-hours we slugged away, each taking his turn at either the wireless, the land line, or the engine. It was necessary to run the engine constantly, something the water cooling sytem of the kerosene engine had not been designed for.

During those three days we found that we had handled 22,000 words in that small station. Not an inconsiderable amount of work for any telegraph office with greater facilities than ours.

This episode was the first time that a ship in distress had utilized wireless to save life at sea. It brought home to the world in such a forceful, dramatic manner, that wireless was a necessity. Within a very short period laws were enacted that compelled ships not only to carry wireless, but to carry not less than two operators in order that a constant watch might be kept. Those laws are international today in 1970. The maritime nations of the world gathered in convention in London(1912) and made a treaty which has been the base of radio regulations in every civilized country of the world. Jack Binns, the operator in the ill-fated Republic, arrived in New York to find himself a hero, and proclaimed in every newspaper printed."

A N E R V E R A C K I N G E X P E R I E N C E by David Sarnoff

The "Titanic" was also a White-Star Liner, then the largest afloat, which sank on its maiden voyage, April 15, 1912, with a loss of over 1,500 lives. Enroute to Southampton, New York, with over 2,200 passengers, she crashed into an iceberg just south of Newfoundland and east of New York. The Carpathia, summoned by wireless, picked up the survivors. Investigations in the United States and England, resulted in many reforms, including changing ships' courses to avoid iceberg warnings; passage of ship safety legislation, etc. U.S. reported 1,517 lives lost; British reported 1,503 lost. The ship was 882½-feet long, and cost \$7,500,000!

A young telegrapher who himself worked on Nantucket Island, was David Sarnoff. He was still in his teens when this disaster occurred. He received the news of the Titanic's collision with an iceberg and stayed at the telegraph key for 72-hours to receive the names of survivors from the rescue ship Carpathia as it neared

new York. The wireless station was then on top of Wanamaker's Department store in New York City. On April 15th, 1912, he copied this message: " S.S. TITANIC RAN INTO ICEBERG SINKING FAST." By order of President Taft the telegrapher remained on duty 72-hours. The sole contact with the tragedy, he was the first to hear the survivors names. David Sarnoff later became, 4-years later, the Head of RCA.

He had an idea that radio someday would be in every home. It was his idea to bring music into every home by wireless. He thought the receiver would be like a music box. In 1916, this idea was truly imaginary and very remote to reduce to practice. But with the radio marine company acquiring the assets of the Marconi Company and this ushering into existence the Radio Corporation of America, it did become a reality. Edward J. Nally became President of RCA and Owen D. Young became chairman of its board of directors.

THE COMING OF THE LAW

from "200-meters and down)
ARRL 1936

Prior to the year 1910 there was an absence of legislation on the control of radio, some of the problems of administration were handled by the United States Navy, which had rapidly-developing radio interests. Amateurs, and others, were under no compulsion to observe the suggestions made by the Navy Department, yet many of them applied for "Certifications of Skill" in radio communication which were being issued in lieu of operator licenses (even commercial operators were not required to be licensed until the passage of the Wireless Ship Act of June 24, 1910). By September 30, 1910, the Navy Department had issued 477 of these certificates of proficiency, the Department of Commerce had issued 30, and a number had been granted by the War Department at Fort Omaha. While it is not known how many of these were issued to amateurs, the probability is that amateurs got the greater percentage of them."

"In the summer of 1926 there came the breakdown of the radio "law". For a number of years the Act of 1912 had been obsolete. All attempts at enactment of an adequate federal regulatory measure had failed. The Hoover Radio Conference, begun originally in 1922 with, and thereafter held ostensibly for, the purpose of devising recommendations for congressional action, had actually become meetings at which all radio interests mutually agreed to observe the regulations established by the Department of Commerce. These "gentlemen's agreements", necessitated by the procrastination of the politicians, functioned adequately and were generally observed until the handing down of the opinion in the Zenith case, on April 16, 1926. In July, 1926, Attorney-General Donovan made public the knowledge that, in point of legal fact, the federal Government had no control over radio except that expressly authorized in the 1912 act, which made no reference to broadcasting or to high-frequency allocations.

Hundreds of broadcasting stations immediately jumped their assigned frequencies, seeking more delectable berths. They increased power as they pleased. Many new stations came on the air, despite the already overcrowded spectrum, regardless of interference. The chaotic condition then existing in the broadcasting art is still

recalled, The 14,902 amateurs (as of June 30, 1926), however, who had been aware of the situation through an opinion of the American Radio Relay League with their general counsel, Paul M. Segal, in 1924, and to whom the extra-legality of existing regulations was made known in magazine editorials, nevertheless adhered to their assignments and did not join the throng of those who claimed wholesale privileges at the expense of others under a technicality in the law.

The broadcasting situation, however, degenerated into an insoluble mess, and immediate congressional action was imperative. On February 23rd, the Radio Act of 1927 was approved. In this Act the word "amateur" was used for the first time in any statute. This law created the Federal Radio Commission giving it power to classify radio stations, determine their location, regulate their apparatus with respect to its external effects, make lawful regulations either for the prevention of interference or further to carry out provisions of the Act, and require logs or records of transmission. The commission's power to license stations was to be exercised only under a prescribed standard of public interest, convenience or necessity (PINCO). Secrecy of correspondence was imposed, "provided that this...shall not apply to the receiving, divulging, publishing, or utilizing the contents of any radio communication broadcasted or transmitted by amateurs...for the use of the general public..." The radio Act of 1912 was repealed. Violation of the new act or regulation properly enacted thereunder was made criminal. The Secretary of Commerce was given authority to prescribe the qualifications of and to discipline station operators, to inspect stations, and to assign call letters.

The new Federal Radio Commission first met March 15, 1927, on the occasion of its initial meeting, by General Order no. 1, it extended the force and effect of all radio amateur licenses issued by the Department of Commerce from and after March 15th until further order, the extension to be of the same force and effect as though new licenses had been issued. On March 27, 1928, these licenses were ordered terminated as of August 31, 1928. This was later extended to November 1, 1928, after which date amateur stations were individually licensed for periods of one year, until the adoption of new regulations effective October 1, 1933. The various regulations of the Department of Commerce, which, of course, were made pursuant to the recommendations of the national conferences, were informally continued in effect by the commission and continued to be enforced by the Department of Commerce. On March 7, 1928, the commission issued General Order No. 24, containing its amateur regulations, which were continued in force, with subsequent modification and revision, until dissolution of the commission on July 1, 1934.

Seven months and eleven days after the approval of the Radio Act of 1927 there convened in Washington the delegates of more than seventy nations to the International Radio Telegraph Conference of 1927. The domestic radio law had gone fifteen years without change; so, too had the International treaty and regulations adopted at London in 1912, a wholly different radio structure had grown up in the intervening period. Fifteen years of progress at the most terrific pace ever

experience in any art or industry had gone unrecognized insofar as international control was concerned. It had been planned that a conference was to be held in Washington in 1917-the conferences were scheduled at five-year intervals-but the war intervened. When the Washington conference finally was held in 1927, it had for consideration an entirely new branch of the art-highfrequency radio with novel characteristics, and already possessed of great future.

Prior to the conference, a period of preparation had been undergone by the various nations. These nations, according to the prescribed procedure, had transmitted their suggestions for the modification and extension of the London Convention to the international Bureau of the Telegraph Union at Berne, Switzerland, which combined all the suggestions into a voluminous tome called "Propositions Pour La Conference Radiotelegraphique De Washington." In France and England, especially, the disfavor in which private radio interests were held was apparent; in view of the relative liberality of these countries, the contrast was all the more discouraging. The reasons for this attitude were depressingly fundamental. In European countries, radio communication, like that by post and wire, is a government monopoly. Any network of privately owned stations may threaten state revenues. Also the militaristic viewpoint governing communications in many lands had already been emphasized."

HISTORY OF GOVERNMENT REGULATION

(regulation of wire and radio communications:)

Though several earlier acts of Congress dealt with specific telegraph matters, Federal regulation of interstate electrical communication may be said to date from passage of the Post Roads Act of 1866. It authorized the Postmaster General to annually fix rates for Government telegrams.

In 1887, Congress gave the Interstate Commerce Commission authority to require telegraph companies to interconnect their lines for more extended public services.

Government regulation of the accounting practices of wire communication carriers began with the Mann-Elkins Act of 1910. That act authorized the Interstate Commerce Commission to establish uniform systems of accounts for telegraph and telephone carriers, to make valuation studies of certain wire telegraph and telephone companies, and to be informed of extensions and improvements in order to keep these valuation studies to date. In this connection, telephone and telegraph carriers were required to file monthly and annual financial reports with the Interstate Commerce Commission.

EARLY RADIO REGULATION

The Mann-Elkins Act also gave certain regulators over radio-telegraph carriers to the Interstate Commerce Commission. This statute, in effect, extended provisions of the Interstate Commerce Commission act of 1887 to cover wireless telegraph.

Meanwhile, the usefulness of radio telegraph in protecting life and property at sea became so apparent that a preliminary international wireless conference was held at Berlin in 1903 to consider a common distress call for ships and to provide for wireless communication between ships and shore as well as between ships.

WIRELESS SHIP ACT OF 1910

The first legislation dealing with marine radio was approved by Congress in 1910. Known as the Wireless Ship Act, it required installation of wireless apparatus and operators on large sea-going passenger vessels. Enforcement of this act was made the responsibility of the Secretary of Commerce and Labor, who at that time administered the domestic maritime navigation laws. In 1912, the Third Radio Telegraph Conference in London approved regulations to assure uniformity in practices of radio telegraph services.

The enforcement of these regulations, as far as the United States was concerned, was delegated to the Secretary of Commerce and Labor.

Later that same year, Congress amended the Wireless Ship Act of 1910 to cover cargo vessels; also to require an auxiliary source of power supply on ships, and adequate means of communication between the radio room and bridge, and two or more skilled radio operators on certain passenger vessels.

RADIO ACT OF 1912

Regulations for further uniformity of wireless communication practices were adopted by the International Radio Telegraph Conference at London in 1912. To carry out its obligations under that treaty, the United States enacted the Radio Act of 1912. This was the first law for the domestic control of radio communication in general.

The Radio Act of 1912 embodied regulations concerning the character of emissions, transmission of distress calls, set aside certain frequencies for Government use, and placed licensing of wireless stations and operators under the Secretary of Commerce and Labor. Licensing began that year.

WORLD WAR I PERIOD

During the period from August 1, 1918 to July 31, 1919, the Federal Government exercised control of telephone and telegraph communication as a war measure.

In 1920, Congress authorized the Secretary of the Navy to use Government-operated radio stations for the transmission of press and private commercial messages between ships and between ships and shore, at reasonable rates subject to review by the Interstate Commerce Commission.

By the Transportation Act of 1920, the Interstate Commerce Commission was directed to prescribe the depreciation rates and charges of telephone and telegraph companies. Also, in 1920, the Interstate Commerce Act was amended to permit consolidations of telephone companies when approved by the Interstate Commerce Comm.

An executive order, issued in 1921 pursuant to the Cable Landing License Act, authorized the Department of State to receive all applications to land or operate ocean cables, and to advise the President with respect to the granting or revocation of such licenses. Prior to that time, the President since 1869 had exercised this control under their broad executive powers.

RADIO ACT OF 1927

The Radio Act of 1912 did not anticipate or provide for broadcasting. However, this did not present any serious problems prior to the first World War. Early broadcasting was all AM.

In 1919 broadcasters were classified as "limited Commercial Stations." In 1922 the "wavelength" of 360-meters (approximately 830-kilocycles) was assigned for the transmission of "important news items, entertainment, lectures, sermons, and similar matter." Stations engaged in this service held limited commercial authorizations from the Department of Commerce.

Recommendations of the First National Radio Conference, held in Washington in 1922 resulted in further regulations by the Secretary of Commerce (Hoover). A new type of broadcast station came into being, with minimum power of 500-watts and maximum not to exceed 1000-watts. Two frequencies (750 and 833 kilocycles) were assigned for program transmissions.

So rapid was the growth of broadcast stations that, upon recommendation of subsequent National Radio Conferences (1923 and 1924) the Department of Commerce allocated the present standard broadcast band (AM being the only form of broadcast at that time), and authorized power to 5000-watts for experimental use.

Increase in the number of broadcast stations caused so much interference that, in 1925, a fourth National Radio Conference asked for a limitation on broadcast time and power. The Secretary of Commerce was unable to deal with the situation because court decisions held that the Radio Act of 1912 did not give him sufficient authority. Many broadcasters jumped their frequencies and increased their power and operating time at will. This caused bedlam on the air. In 1926 President Coolidge urged Congress to remedy matters. The result was the Dill-White Radio Act of 1927, which was signed February 23, 1927.

FEDERAL RADIO COMMISSION (FRC)

The Radio Act of 1927 created a five-member Federal Radio Commission to have certain regulatory powers over radio, including the issuance of radio station licenses, the allocation of frequency bands to various services, assignment of specified frequencies to individual stations, and control of station power.

However, the same act also delegated to the Secretary of Commerce authority to inspect radio stations, to examine and license radio operators, and to assign radio call signals. The Federal Radio Commission started to function on March 15, 1927. Much of its early activity was devoted to resolving the problem in the broadcast band. It was impossible to care for the 732 AM stations

as then operating. New rules and regulations caused about 150 of them to surrender their licenses.

Under the Radio Act of 1927, the Federal Radio Commission was, at the end of that year, to become an appellate body to review decisions of the Radio Division of the Department of Commerce in making allocations and its authority as a licensing agency was extended annually by Congress until 1929, when an act was approved continuing its powers "until otherwise provided by law."

COMMUNICATION ACT OF 1934 (FCC)

The Radio Act of 1927 did not give the Federal Radio Commission jurisdiction over telegraph and telephone carriers, as previously indicated the Post Office Department, the Interstate Commerce Commission and the Department of State exercised certain authority with respect to telegraph service; some regulation of telephone service was under the Interstate Commerce Commission; and the Federal Radio Commission had supervision over broadcasting. This divided and sometimes overlapping authority caused much confusion.

At the request of President Roosevelt, the Secretary of Commerce in 1933 appointed as interdepartmental committee to study the situation. The committee reported that "the communications service, as far as Congressional action is involved, should be regulated by a single body." Accordingly, it recommended the establishment of a new agency which would regulate all interstate and foreign communication by wire and radio, including telegraph, telephone, and Broadcasts.

On February 26, 1934, the President sent a special message to Congress urging creation of the Federal Communications Commission for that purpose. The next day Senator Dill and Representative Rayburn introduced bills to carry out this recommendation. The Senate bill (S.3285) passed the House on June 1, 1934, and the conference report was adopted by both houses eight days later.

The Communications Act signed by President Roosevelt on June 19, 1934. Some parts of it became effective July 1 of that year; others on July 11. The Communications Act coordinated in the Federal Communications Commission broadcast regulatory functions previously exercised by the Federal Radio Commission, which was abolished by the Communications Act: supervision of certain telegraph and telephone operations formerly vested in the interstate Commerce Commission; jurisdiction over Government telegraph rates which had been under the Post Office Department, and some powers of the Department of State with respect to the Cable Landing Act. The Communications Act gave the FCC additional authority, including supervision of rates of interstate and international agreements relating to electrical communication generally.

The stated purpose of the act are "regulating interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all the people of the

United States a rapid, efficient, Nation*Wide, and worldwide wire and radio communication service with adequate facilities at reasonable charges---the National Defense---promoting safety of life and property through the use of wire and radio communication---."

It applies to all interstate and foreign communication by wire or radio and all interstate and foreign transmission of energy by radio, which originates and/or is received within the United States, and to all persons engaged within the United States in such communication or such transmission of energy by radio, and to the licensing and regulating of all radio stations."

THE STATUTE CONSISTS OF SIX MAJOR SECTIONS OR "TITLES":

TITLE 1-defines the purposes of the act, the terms and duties of the Commissioners, and confers general powers.

TITLE 2-contains provisions applicable to communications common carriers that are subject to commission regulation.

TITLE 3- relates to radio and is divided into three parts. Part 1 deals with radio licensing and regulation in general. Part 2 pertains to use of radio equipment and radio operators on board ship. Part 3 concerns radio installations on vessels carrying passengers for hire.

TITLE 4-spells out procedural and administrative provisions.

TITLE 5-spells out and prescribes penalties and forfeitures for violators.

TITLE 6-prohibits unauthorized interception and publication of communications by wire or radio and gives the President certain powers to deal with communication matters in event of war or other national emergency.

Extensive revisions of the act-particularly in 1952 and during the period 1960 to 1962-made important changes in the Commission's organization and procedures. The Communications Satellite Act of 1962 gave the FCC new responsibilities with respect to space communication. A Presidential Executive Order of 1963 augmented its duties to ready the communication services under its jurisdiction to deal with possible national emergency situations.

FEDERAL COMMUNICATIONS COMMISSION

The FCC began to function on July 11, 1934. It is composed of seven Commissioners appointed by the President, subject to confirmation by the Senate. One of the Commissioners is designated chairman by the President.

not more than four Commissioners may be members of the same Political party; The normal term of a Commissioner is seven years. The authority of the Commission extends to Guam, Puerto Rico and the Virgin Island, but not to the Canal Zone. It does not regulate Federal Government radio operations.

The Communications Act limits licensing by the Commission to citizens of the United States. It further denies the license privilege to corporations in which any office or director is an alien, or of which more than one-fifth of the capital stock is owned or controlled by foreign interests. In the interest of air safety, waivers may be granted to certain one-citizens pilots of aircraft operating in this country.

The Commission is responsible for the domestic administration of wire and radio provisions of treaties and other international agreements to which the United States is a party.

Under the Communications Act of 1934, as amended, the regulatory powers of the Federal Communications Commission fall into three major categories-those affecting common carrier services (telephone and telegraph by means of radio and wire, including submarine cable); those dealing with non-broadcasts radio services, (safety and special); and those relating to broadcasting (or programing) services.

COMMON CARRIER REGULATION

The commission regulates interstate and foreign communication by telephone and telegraph, whether by wire including submarine cable, or by radio. Such communication which is purely intrastate in character is not subject to commission jurisdiction but comes under the authority of state utility commissions.

Among the regulatory provisions of the act is the requirement that every subject common carrier furnish service upon reasonable request and at reasonable charges.

No carrier may construct or acquire additional interstate facilities, or curtail or discontinue interstate service, without commission approval. All charges, practices, classifications and regulations in connection with interstate and foreign communication service must be just and reasonable. To implement this requirement, the common carriers concerned file tariff schedules with the Commission, and the rates and regulations set forth in those schedules are subject to review and regulations by the Commission.

The Commission regulates rates for interstate telephone and telegraph services, as well as rates for such services between the United States and foreign overseas points, and ships at sea. At the same time, it reviews the adequacy and quality of those services.

Repeal of the Post Roads Act in 1947 did away with special domestic telegraph rates for the Federal Government. The GOVERNMENT has never had special telephone rates.

To aid its regulation of rates and services, the Commission is empowered to prescribe the forms of records and accounts kept by the carriers. Under this authority, it has established uniform systems of accounts for them to follow. Commission regulation in this respect includes the establishment and maintenance of original cost accounting, continuing property records, pension cost records, and depreciation records.

The Commission licenses the operators of common carrier radio stations under provisions of the act which require the licensing of all radio transmitters. After receiving the approval of the Secretary of State, the Commission grants authority to land submarine cables in this country to connect with other countries.

BROADCAST REGULATION

The Communications Act deems broadcasting not to be a common carrier operation, and, further, enjoins the Commission from censoring programs or interfering with the right of free speech on the air. Consequently, FCC regulations of broadcasting concerns two general phases.

The first phase deals with allocating portions of the spectrum to the different types of broadcast services in accordance with the Commission's rules and regulations to carry out the intent of international agreements, the Communications Act and other domestic law affecting broadcasting.

The second phase concerns individual stations, and embraces consideration of applications to build and operate; the assignment of specific frequencies, power, operating time, and call letters; the periodic inspection of equipment and the engineering aspects of operations; passing upon renewal of licenses and transfers and assignments of facilities; modifications and changes in existing facilities; and licensing operators of those (as well as all other non-government) transmitters.

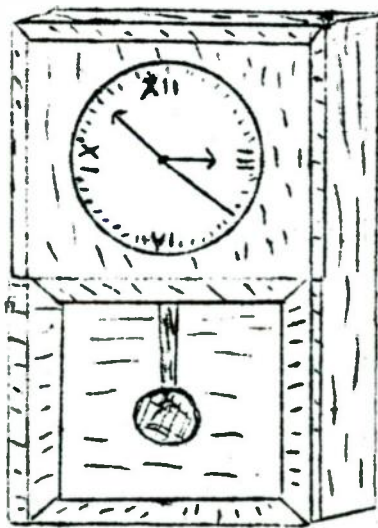
The Commission Act sets up certain basic requirements which must be met by broadcast applicants. In general, applicants must be legally, technically, and financially qualified, and show that their proposed operation will be in the public interest.

Under the Communications Act, it is the responsibility of each broadcast station licensee, in addition to meeting technical requirements, to arrange his program structure so that his operation is in the public interest and, in particular, to meet the needs of the community he serves. Pursuant to duties imposed by the act, the Commission periodically reviews the overall performance of stations, usually when they apply for renewal of license, to see if they have lived up to their obligations, and the promises they made in applying for facilities. The U.S. Criminal Code prohibits broadcasts of information concerning "any lottery, or similar scheme," also utterance of obscene, indecent, or profane language.

The Commission does not license networks as such; only individual stations. However, stations owned by or affiliated with networks are subject to certain broadcasting regulations contained in the Commission's rules.

We live by deeds
not by hours.
By thoughts-
Not by breaths

Man constantly fears time, which shapes his days. Each day he asks himself or others "What time is it?" Then jumps off to an appointment, or prods himself along, or merely settles back for more leisure. He kills time only by doing something he considers not worth the while.



In the beginning of the radio-broadcast days in Cincinnati getting the correct time was a bit of a problem. There were no electric clocks as we know them today in 1971. Complete synchronizing of electric clocks did not arrive until the mid-30's. The average home owner had a windup type clock, and about the only method to get the correct time to set the clock by was to carry a pocket watch to your place of business downtown and set it correctly and after your days work was done you literally brought the time back in your pocket. Most of these watches were made for railroad use so they were accurate.

Ancient timepiece
Says to all-
Forever-Never!
Never-Forever?
Anon

Radio learned early that it must have exact time, especially with the advent of network broadcasts. Even on remote pickups, such as a sports event, or any other-out of the studio program-you were most often out of the listening range of your own station. This meant you couldn't hear the studio announcer give the "cue" for the remote show. It then became necessary to use accurate time so the engineer in charge of the remote broadcasts would synchronize his watch with the studio before he left the studio. If the schedule called for him to begin the remote show at, say, 7 p.m., he would open up his mike for a few seconds before he signalled the announcer to commence talking. If this were not done there was a good chance that the first few words might be missed.

After so many years of watching the sweep-second-hand of a clock go round n' round a person acquires a sort of built-in metronome of his own. It is surprising how long sixty-seconds really is. Through the 30's there were many commercial spot announcements that were only ten-seconds long. These were sometimes preceded by 30-second announcements and then followed by a station break which requires on the average about 5-seconds to accomplish. There is only one "legal" station break or "ID." The station call letters and the city must be given.

We are jumping ahead of our story by telling of time and remote problems, but it does no real harm. Continuing with our clock problems we find that Western Union had a wire link with Arlington, Va., for the Naval Observatory at Washington, D.C., and they would sell time to a radio station and install a special wall-clock. The clock had a red sweep-second hand and it actually worked like any mechanical clock except when it ran down a switch would turn on a windup device operated by two No.-6 dry cells installed inside the clock cabinet. This device automatically rewound the mainspring to the correct point in a matter of seconds, making a whirring noise as it did so. On each hour a 1000-cycle tone was sent over their wire which reset the sweep second hand and correct it to perfect time.

In the beginning of early wireless, as radio was called, it was used principally by the Navy. The transmitter was located at Great Lakes Naval Training station using call letters of NAA. This was a spark type transmitter and many of the earlier radio men in the Cincinnati area learned to copy code from the beautiful 500-cycle tone of this station. In later years the National Bureau of Standards established a station WWV in 1923. In that year they first started transmitting standard radio frequencies for checking transmitters on a regularly announced schedule. This was done on a very limited schedule, some days only one hour per day. News for ships at sea was transmitted and five-minutes before noon a series of dots would be sent and exactly at noon, 12 PM, a long dash was sent. Since that time WWV has expanded their schedule and services. Today it is making major contributions to the nations space and defense programs, to worldwide transportation and communications, and to the broadcast and electronic industries. In 1923 broadcasts by WWV were only accurate to within a few parts in a thousand. Accuracy today is on the order of a few parts in a million, almost as good as the NBS atomic frequency standard itself.

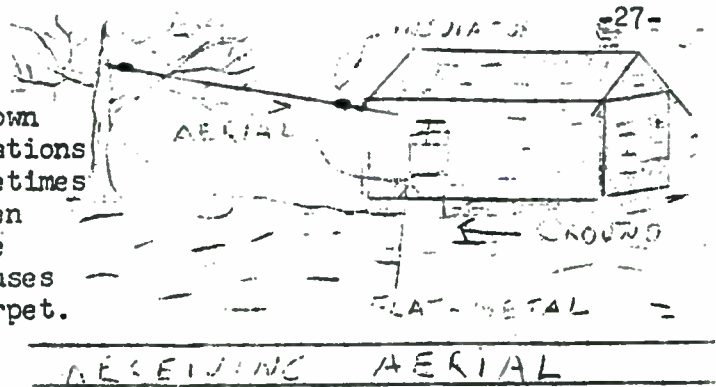
The WWV transmitter was originally located at the National Bureau of Standards in Wash., D.C., and it remained there until 1931. Since then it has moved successively to College Park, Beltsville, and Greenbelt (all suburbs of Washington) and finally, in 1966 to Fort Collins, Colorado, where it went on the air at 0000GMT (7PM), December 1, 1966. The move to Fort Collins was prompted by rapidly obsolescing equipment, the need for a more geographically central location, the high ground-conductivity at Fort Collins, relative freedom from interference by industry, and proximity to the NBS atomic frequency standards at Boulder, Colo. The new locations and facilities of NBS radio station WWV at Fort Collins, which began its transmissions on December 1966 were the themes of a special program at Fort Collins on July 29, 1967. J.M. Richardson, chief of the NBS radio standards laboratory which operates the station, was master of ceremonies of the program which featured an address by Hon. Gordon Allot, U.S. Senator from Colorado. An open house was held at which guests could inspect the new facilities. On November 30th, 1966 at 0000GMT (7PM EST) on the five minute interval preceding the changeover from Aberdeen, Maryland to Fort Collins the first announcement was made and a first-day card was mailed to those who listened and reported it to WWV.

ANTENNA SYSTEMS FOR TRANSMITTING/RECEIVING

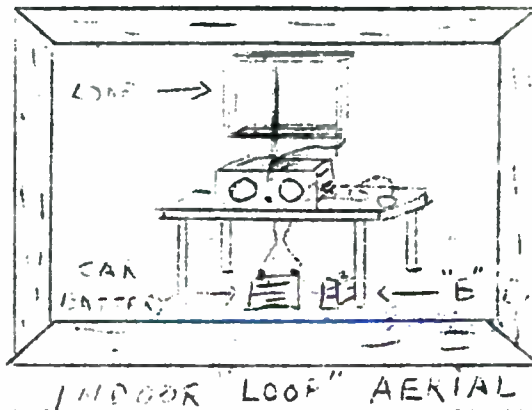
In the beginning of radio broadcasting in Cincinnati, and elsewhere, all the receiving aerials were simply pieces of wire perhaps 50 to 100-feet in length stretched in a horizontal manner. Insulators were on each end and the wire was brought in under a window using a flat copper strip which had clips on either end to attach the outside portion, and a wire attached on the inside of the house to be connected to the antenna post of the receiver. It was absolutely necessary to use a good ground composed of at least a six-foot metal rod driven in the ground alongside the house. As all radio in the early days was long wave it was necessary to do this.

Transmitting antenna systems were also horizontal wires and using a good ground system. If the transmitting antenna had a wire from one end attached to the transmitter it was called an "Inverted L". This was a natural name because looked like an inverted letter L. If the wire was attached to the center of the antenna it was called a "T" type.

Through the 20's the antenna, or aerial was as shown on the right with some variations due to local conditions. Sometimes the aerial was strung between two short poles on the gable of the roof. In apartment houses wires were run under the carpet. Some of us recall using the bed-springs for the aerial.



When I say this to a generation far removed from this age it must sound funny. When you pause and think on this for a moment it is a very practical method because of all the metal coils and the large mass of the springs. Window screens were pressed into this service also.

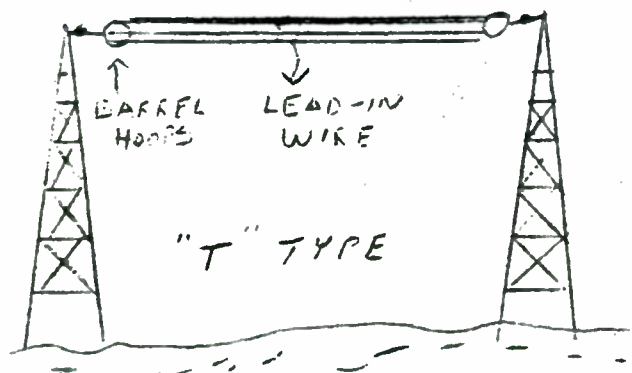
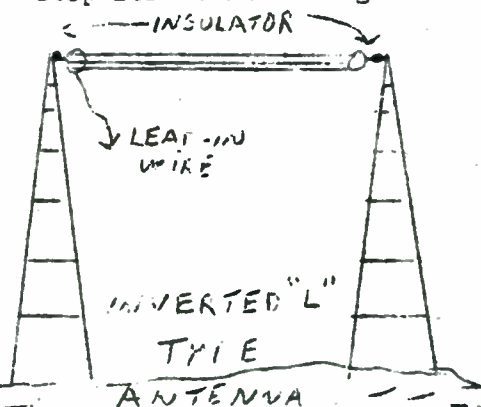


In about 1925 the "LOOP" type came into use. It was a frame of wood, sometimes square, sometimes rectangular, would with fine wire and each end served as the aerial and ground connections. It had an advantage of having directional properties which could be used to "null" out a station in one direction in order to hear the one you wished.

Note the wet-type battery on the floor (acid ate right through the carpet) and the smaller box

contained the electrical apparatus to replace the old-fashioned "B" batteries which were 45-volts each. It was necessary at times to use two of these batteries in a series arrangement in order to obtain 90-volts for some radios. The "B" eliminator operating directly from the electric replaced this. One of the first rectifiers was the type "BH" used in these eliminators.

I had mentioned the transmitting antennae just before and the drawing below illustrates the two types used in earlier radio days. Later on wooden masts were used with copper strips nailed to one of the legs. Then metal towers similar to the windmill towers used on farms to pump water were used. These had an disadvantage of being grounded at their base which made it compulsory to feed the antenna with a wire run midway up the tower. Later insulators were added to the base and this ushered in the final step for transmitting antenna systems.



These antennae had certain deficiencies. For one thing their radiation pattern did not favor a good consistent ground-wave and for another the height above ground affected their operating characteristics too much. There was a gradual change in the late 20's to the Marconi type, or vertical, working against ground.

There are two basic types of these Marconi antenna; either they are self-supporting, or they are what is known as "uniform cross-section" with guy-wires used to hold it up. Of the guyed type there are two shapes in which these can be constructed. One way is to make it the same width throughout its length, and the other is the method used on WLW tower which is shaped like an inverted diamond. This shape pattern does affect the radiating properties of the antenna.

A self-supporting tower has more than one leg, usually three or four. These are mounted on ceramic insulators to insulate them from shorting to ground at the base. The insulators are a special type of ceramic. You can understand this fact better when you consider the dead weight pressing downward on them. WLW's tower, which is 708-feet tall, and which rests on a single ceramic insulator, about as large as a basketball, supports the combined force of 135-tons of steel pressing downward plus the additional force of 400-tons exerted by the downward of the guy-wires. To make this point even more striking, consider it if we convert tons to pounds. Thus 135-tons becomes 170,000 pounds, and 400-tons becomes 800,000 pounds, or a total of 970,000 pounds.

All towers over 179-feet in height must be lighted. This is controlled by the Federal Aviation Authority (FAA) and they specify two 500-watt bulbs at the top and these must blink on-and-off at a certain rate. The towers must conform in painting to what is known as "International Orange" and "International White" spaced at certain intervals.

The concrete that supports the entire weight must be treated in an exacting manner. When it is poured from a definite mix of sand and lime it must be watched carefully before complete drying. Twice a day, while waiting for it to set, burlap sacks are put on the concrete support, and a constant stream of water is kept on it. As you know concrete sets up heat as it dries and this will cause flaws, and the concrete will crack under stress if this is not done.

The guy wires must be insulated from the tower itself and at intervals to avoid shorting it out. Strain insulators with holes in each end are used and these are called "Egg" insulators. The guy wires are inserted through the holes in such a manner that instead of having a tendency to pull the insulator apart, it pulls in a direction that tends to push it together. These guy wires must be set with a measured amount of tension, or pull, if the tower is to withstand high wind velocities and large amounts of ice accumulation in the wintertime. The ice causes the tower to change its physical shape to such an extent that it no longer will radiate in the manner which FCC specified. Temporary authority must be given by the FCC in order to continue operating. Lightning is a constant problem, and if were to see the damage that be done by one lightning bolt at the base tuning unit you would not believe it. Coils, condensers, wiring, all melted down molten ashes. Then it requires many hours to get it back in shape again, sometimes many months before things are back to normal. It is the summer months of June and August which cause near panic to the transmitter engineer. Those soft summer breezes which feel so good also carry small particles of sand and other material which constantly bombard the metal tower, and each particle leaves a small electric charge on it and the hour after hour accumulation will suddenly break down the insulation with a resounding crash like a volley of cannon shot. The coolest operator will find himself on the ciling after that noise occurs.



After the antenna is erected, to very definite specifications, as to its height, length, and other criteria, it is measured for the frequency you wish to operate upon. Tunings units to match the antenna are designed to accomodate this. It is this measurement that determines how much power a given station has. This measurement is in Ohms resistance and by a formula the current required for this power is computed. Power equals the current squared times the resistance. In mathematics this is said in simple language: $P = I^2 R$. What this is saying is broadcast transmitters are measured in POWER OUTPUT and not as other radio services where it specifies POWER INPUT. If the FCC says you can operate in the broadcast band with 1000-watts, the formula will tell you how much current will cause this amount of power to be radiated. For instance, if the FCC says 1000-watts, and the consulting engineer had measured your antenna system and found that it was 10-ohms then: $P = I^2 R$ becomes, by substitution, $1000 = I^2 \times 10$, $I = \frac{1000}{10} = 10$ and finally $I = 3.15$ amps of antenna current. FCC will hold you to that figure plus 5% over, and 10% under this value.

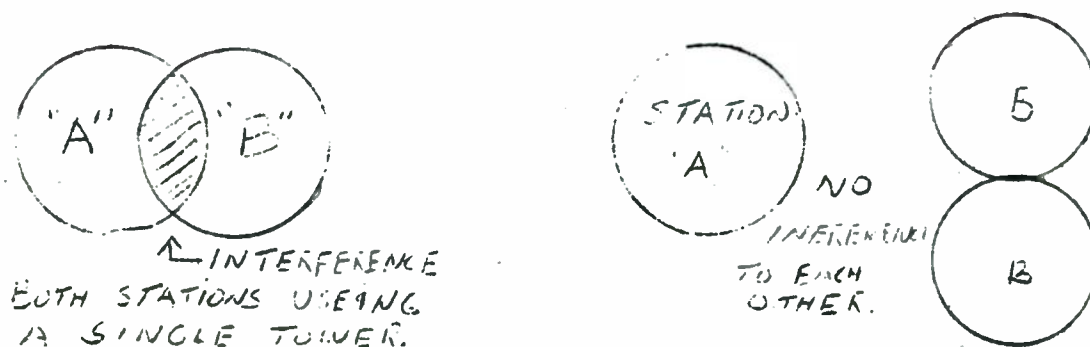
Broadcast stations have what is known as "service" areas. The type of soil over which the antenna is placed, and the type of soil over which the signal travels determine what its strength will be at a given location or receiving point. It must be mentioned that elaborate precautions are taken by stations to insure that a good ground is obtained. Radial wires, buried several feet underground, are run out for several hundred feet at about 3-degrees apart, making a total of 120-wires, and these are the ground system. All parts of the studio and other parts are connected to this same ground. All soldering is done with silver solder. In general Sandy soil is the poorest for radio and salt water is the best conductor of radio waves. In Cincinnati the Ohio River affects radio waves because this is an abrupt change in soil and measurements made on one side of the Ohio will be different from those on the other side. The service areas are divided into three main divisions. The chief one is called the Primary Service area, and is that area where good reception is obtained all the time. The next one out is called the Secondary Service area and is caused by the Sky-wave signal reflected from the ionosphere. The third one is called the Intermittent Service area and this is the one that enables a person to hear signals from far distant points at night. It is not reliable though. At the point where the skywave and the primary service areas meet is where bad reception takes place. This is caused by the skywave arriving at the receiving point at a different time than that of the primary wave. This type of interference is called "Selective Fade" and causes distortion in the signal.

The matter of soil conductivity is important. So important is it that in some parts of the U.S. where sandy soil exists it takes almost 50,000-watts of power to do what only 250-watts will do over good soil.

It is a fact that in the standard broadcast band from 535 KHz to 1600 KHz there are now in 1971 107 separate channels each 10 KHz wide. Into this band of frequencies are squeezed 5,100 separate stations in fifty states.

The standard broadcast antenna towers are the actual radiating part. In TV or in FM broadcasting the towers are only supports for the antenna. These antenna are small physically and must be installed at high elevations. There is this distinction to be made in radio towers.

In the late thirties directional antennae started to make their appearance. A brief description will not be amiss at this juncture. The use of directional antenna systems was necessitated by a second station wanting to go on the air and to use the same frequency as a station already on the air. Suppose there is a station on the air at point "A" and its signal covers that shown in the diagram on the next page. If another wishes to go on the air at point "B" with just a single tower. It will be seen that the two will interfere with each other.



ADVANTAGES OF DIRECTIONAL ANTENNA

The first station has certain rights by a "Grandfather Clause" to be there and to resist the efforts of another to construct a new station. Of course the FCC would not permit such a condition to exist. If a second station is to go on the air then it must protect the original occupant of that frequency. It is the second stations responsibility to prove that it will not cause interference to the first station. By erecting two or more towers, and controlling the phase and power fed to them, there can be obtained almost 1,500 different shaped patterns from the antenna system. The example above shows what is termed a "figure 8" pattern.

RECEIVING ANTENNA SYSTEMS

In the early twenties and through much of the 1930,s most of Cincinnati homes were of an older type. They were built in the days before the city had gas piped in to each home. They couldn't tear down all the walls to run pipes inside so they did was was obvious and ran them on the walls. They simply let them be visible. Then later on city water was brought in, and again this process began, only this time some of the pipes crossed over one another. Many service calls were made by radio servicemen because of this problem. What did it cause? Well, the pipes would touch each other where they crossed. When people walked over the floor it would jar the pipes and cause a terrible amount of noise in the radio. It also caused a condition called cross-modulation. This would be manifest by tuning to one station and you would hear another station in the background. We corrected this condition by inserting a piece of paper, or tape, between the pipes and this stopped the noise. You see, radio waves go in every direction and they don't know your antenna from an electric wire, a water pipe, a gas pipe, fencing, or even your old cast-iron stove. All these would pick up energy and if they rubbed against each other or another object dwhich had also picked up energy, this point of contact would be an elementary form of detector. Even gutter pipes did this because of poor contact between the pipe sections.

I guess everyone by now has heard of the tales, and they were true, when WLW ran their high-power of 500,000-watts between the years 1934 and 1939. Well Sir: every gutter pipe, every stove, peoples metal filled teeth, bicycles, roller skates, and you name it, would be a radio in itself. You didn't need tubes, batteries, carphones, or anything else to hear it. Imagine getting up in the morning and opening the oven door and hearing a program like :Inner Sanctum:." If it wasn't so cold outside you could at least make a dash for the door. When WSAI moved from the U.S Playing Card Plant in Norwood to a new location in Clifton on warner street they had this problem so bad they finally had to move their transmitter way out to Mt. Healthy to solve it. With todays new type home construction it is no longer likely to happen. Rumor has it that a man just had a gold filling put in one of his teeth by a dentist and he walked into a crowded restaurant. He had just opened his mouth to give his order to the waiter when the strains of our National Anthem came out of his mouth. 250 people stood at attention! I can't verify this at the moment.

Most radio stations play the National Anthem at sign-on and again at sign-off.

Because of the many years I had worked at radio transmitter I can't help myself and stop make a mad dash for the nearest switch every time I hear the National Anthem. I always had the fear that I had forgotten to turn on the transmitter!

Once upon a time there were no electric wires, with the attendant noise problem. Now were there airplanes, autos, or other contrivances to make noise. A person could take a battery operated radio out in the country and hear with unblieveable clarity. Even th weakest station could be heard. Those were the days. Now it takes a 50,000-watter to be heard 25-miles with all the modern racket.

In the early twenties most radios were simple. Most crystal sets or even the one-tube jobs did a remarkable job by any standards. For one thing people learned early that you had to use an outside wire for an antenna and a good ground to hear anything. For a ground most used the cold water pipe. Why the cold pipe and not the hot? Well, the cold pipe connected directly to the ground outside the house whereas the hot pipe was insulated by having "union" which insulated it from the outgoing pipe. These unions had a paper washer to make a good seal and this disrupted the electrical continuity, and thus no contact back to earth. Most people used what were termed "Nail-it-knobs". These were two round ceramic insulators with a nail through the center. You wrapped a wire between the two insulators and nailed it to the wall.

About 1934 or 35 most of the American radio manufacturers began making sets with shortwave bands on them. These bands are called International Short-wave bands. The newspapers would list the various stations daily and most everyone would listen to GSD in Daventry, England at six PM to hear Big Ben strike midnight. About this time radio companies started to put aloop antenna inside the large floor models. RCA and other companies came out with a new form of antenna to be used for these all-wave sets. They resembled a spiderweb. The Philadelphia Storage Battery Company made another type of antenna to be used for the same purpose. Who was that company? None other than PHILCO. Their name was a contraction of the battery company name. Their mottoe was "PHILCO-First with the finest."

All the early radios had no volume control or means to control a strong signal. If you experienced this trouble the only solution was to take off the aerial and bring it close to the antenna terminal without actually touching it. Many of these sets had two terminals for antenna connection. One was to be used for strong local stations, and the other for out-of-town stations.

The Loop antenna, which was used indoors, could be constructed by forming a cross with two pieces of wood and at the outer extremes a common hair comb could be glued and the teeth of the comb would act as spacers for wire to be wrapped in a coil around the wooden cross.

Another form of antenna, and I use the term loosely, was the "Antenna Eliminator." It usually was just the base of an old tube with a wire stuck inside it and you were supposed to plug it into the electric socket. It was really what I caaled "A do-nothing gadget." They sold by the millions at several hundred percent profit. I suppose that was the name of the game.

It is in the realm of auto radios where we find the greatest advancements. If you recall, cars had wooden floor boards, batteries were mounted under the front seat, body made of wood, the roof was cloth covered, running boars connected between front and rear fenders, and gas gauges which were made like a wooden ruler to be stuck inside the gas tank eac h time you wished to find out how much petrol you had.

Exactly when the first radio was installed in an auto is anyone's guess. Records as early as 1908 an enterprising soul took a simple one-tube receiver complete with its own batteries, and put it inside a car. A loop antenna was used and records show that he did copy a program from a ship station.

The early car radios used a piece of chicken wire mounted under the cloth roof. A wire was run down the wooden post of the windshield as the lead-in to connect to the car radio mounted on the fire wall. The dial and volume control was separately housed and clamped to the steering post with flexible cable back to the radio. All the cars had what were termed "running Boards" which had two purposes. It maintained some rigidity between the front and rear fenders, and as the wheels were usually 19-inch it meant that the car body was a good distance from the ground, so the second purpose of the running board was to serve as a step to enter the car. The high wheels were necessary because of the rough roads in that day. It was this running board which became the mounting for an antenna for the radio. Of course these were called "Running Board Antenna." They absorbed quite a bit of punishment as the car traveled over the terrible roads. Mud, rocks, snags, all added up to tear this antenna from its moorings. Sometimes an antenna would be mounted on each running board.

Wires were also strung between the front and rear axles to serve as an antenna. Then in the mid-30's the present whip type antenna came into being. You will recall that I had stated that a transmitting antenna is usually several hundred feet in length. To have the same thing, or obtain the same results, you should have the same height antenna installed on your car. Obviously this is an impossibility. I mention this only to illustrate a point. The car antenna is very poor in itself, because of its lack of height. The advances made to overcome this are not so apparent, or visible, to the casual eye. The secret of overcoming this lack of height is in the use of a very special coil called an antenna coil which is mounted inside the radio itself.

In a car radio installation there are many problems of noise. Generators, heaters, turn signals, lighting systems, courtesy lights, dome lights, etc., all create a bedlam of internal noise. The ignition system is by far the worst offender. This type of noise is carried by all the wiring of the car. The wiring acts as an antenna, and the noise sources are actually small transmitters. This noise is radiated to other cars on the road too. Concrete roads, with their metal rods to strengthen the concrete, will carry noise for many miles from your own car as you travel over it. So will the noise from other cars travel many miles.

Early cars were mostly of wood, and what metal there was had never been bonded together like modern cars, where almost the whole body is one piece of metal. It was impossible to get a common ground on any section of the older cars. The ignition type noises were terrific and other noises caused by wheel-static and the friction of the rubber tires on the road surface all added up. There were more problems connected with car radios than any other type.

Probably the most neglected segment of the whole radio industry is the radio serviceman. He is truly an artist in understanding radio circuitry. His lot is difficult, and fraught with many frustrations. For one thing, he is working with radio receivers whose job it is to snatch an intangible ethereal force of a radio signal from the air, and make it audible to the human ear. This is quite a job, when you stop and think about this.

The radio serviceman is a "True Knight of the Soldering Iron." Thousands of people are engaged in this type of electronic repairing, and their lot is not easy. They are deluged with tons of literature from every radio manufacturer and dealer. They have to constantly study in order to understand new circuits as they make their appearance daily. A good radio serviceman is a combination of mechanic, engineer, electronic wizard, scholar, and a goodwill ambassador. So a tribute to the real backbone of radio, the radio serviceman who never gets the credit he so

"Because of the wide variety of its industrial activity, Cincinnati does not have so seasonal a life as cities with fewer important manufacturers. The city is represented in nearly 250 of the 319 industrial classifications listed in the census compiled by the United States Department of Commerce. It leads the world in the production of soap, machine tools, playing cards, and sporting goods and takes high rank in the manufacture of office furniture, laundry machinery, printing inks, text books, women's shoes, work clothing, and men's wear, sheet metal products, engineering appliances, coffins, laminated bakelite, overalls, printed work, meat, radio sets, beer and liquor, agricultural pharmaceutical, and industrial chemicals.

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In 1919 the radio industry began in Cincinnati when the Midwest Radio Corporation started manufacturing crystal receiving sets. About the same time the Precision Equipment Company started regular broadcasts of musical programs over station WH. In 1921 Powell Crosley, Jr. got interested in radio, and by July 1922 he was the World's leading manufacturer of radio receiving sets producing five hundred (500) a day." (from they built a city 1938)

Another early manufacturer was the "KODEL" Company located at 120 West third street. They made different radio parts, chiefly a battery charger, which was sorely needed as most home radios needed a six-volt battery for the filaments of the tubes of the early receivers. The needed quite a bit of current and as a consequence they needed charging almost every day. It was the custom to take them to the nearest auto-repair shop for a recharge. These batteries were quite a nuisance to the housewife as the acid was forever eating away at the floors and rugs! The Kodel Radio Company was operated by Clarence Ogden. His first receiver was made to look like a Kodak camera. The name came from "KO" for Kodak, and the "DEL" from his wife's name of Della. Kodel first built a line of low priced receivers. The one tube type sets. They were covered with leatherette, and came in one tube, two tube, or three tube models. The one tube receiver was advertised as the smallest on the market. Cheap, compression type condensers were used. The company was later changed to the Kodel Radio Corporation. When broadcast station WH was purchased the call letters were changed to WKRC.

"In 1920 rapid advances in radio broadcasting and the subsequent rush by American industry to supply the demand for receiving sets helped the country break the minor depression which had set in following the World War. At that time two local plants manufactured a limited number of popular, although expensive, crystal radio receiving sets. One of the firms, the Precision Equipment Company (1919), was also operating a broadcasting station on a more or less regular schedule. The programs were chiefly rebroadcasts of phonograph music.

Several Cincinnatians were becoming engrossed in the problems of radio manufacturing. Using his Hamilton Avenue phonograph factory, called the "MARION" Phonograph Company, Powell Crosley, Jr., manufacturer of these phonographs and also automobile accessories, was making one-piece porcelain sockets for vacuum tubes and later complete parts for sets. Afterwards he designed and produced a variable condenser and a rheostat, and at length was manufacturing a complete crystal detector set. This apparatus, which sold for \$15, was cheaper than any other device of its kind on the market. In the fall of 1921 Crosley proposed to his engineer, Dorman Israel, that they try building a receiving set without a crystal. Israel, concocted something that included a coil with an old oatmeal box as its core. That night the two men sat beside this contraption at Crosley's home and tried to tune in station WH at Peebles corner, about seven miles away. Soon they heard sounds, and then an announcement, "This is station WJZ, Roselle Park, New Jersey."

Crosley and Israel were amazed. Nervously they turned the dial, hearing Pittsburgh, Detroit, Hamilton, and again WH. Using the experimental set as a model, Crosley designed and soon was manufacturing HARKO, SR.

34- Once more he was able to undersell competitors, and by the spring of 1922 the Crosley plant was producing five hundred radio receiving sets daily; it had become the world's leading manufacturer of small crystal sets.

Crosley did so well in 1922 he bought a large building at Colerain Avenue and Alfred Street. Two years later, shortly after the business was incorporated as the Crosley Radio Corporation, the continued big demand for radios again overloaded the firm. A building at Colerain Avenue and Sassafras Street was therefore remodeled into a factory. A four-story addition was built in 1926, and an eight-story structure completed during 1929. s

In 1938 the Crosley Radio Corporation plant, extending from Sassafras Street to Arlington Street on Colerain Avenue, and more than six-hundred feet west on Arlington Street, housed not only the radio set manufacturing division, but also the studios of WLW, WSAI, and shortwave station W8XAL, and the electric refrigerator, washing machine, ironer, Xervac (hair restorer machine) and gas and electric stove production units of the corporation. The plant had a manufacturing capacity of two thousand home and automobile radio receiving sets daily. Branch factories of the corporation are in Richmond and Kokomo, Indiana.

The cold facts of recording any history are of an impersonal nature. To bring this to a people-to-people basis I can state that I was part of this scene in 1938. In fact I had worked at the Crosley plant as early as 1935 as a mechanical trouble shooter on auto radios. I was paid the magnificent sum of 32¢ per hour at first, and later rose to such giddy heights of prosperity as 40¢ per hour. It wasn't as bad as it looks on paper as I could ride to and from work on the streetcar at a rate of ten trips for 90¢. I bought strips of tickets and saved ten cents a week. In those depression days there certainly were no fringe benefits as are known in 1970. In fact the lunch period was simply a mad scramble to a small grocery store where we could buy a sandwich for 10¢ (with or without mustard). My only contact with the Federal Government was an occasional visit to the postoffice to buy a penny postcard! Radio work was seasonable, and usually working overtime from September until mid-December building radios for the Christmas season. You would be positive to be out of work before Christmas time.

Because of the straight-line production methods he inaugurated, Crosley has often been called "The Ford of the Radio Business." A conveyor belt two miles long moves up and down the building, carrying radio receiving sets, refrigerator compressors, and other pieces in various stages of production. Each article passes through thousands of hands, slowly taking form until, at the end of the belt, the product is complete. In 1938 the company was marketing what is said to be the world's largest set, having 37 tubes and six speakers. A modern radio receiving set consists of more than five hundred separate parts.

In 1920, when the first commercial radio receiving sets were offered for sale, the Midwest Radio Corporation, 909 Broadway, became one of 12 companies in the nation manufacturing the apparatus, and today the firm is still in business (1938). In those years the concern had developed an extensive mail-order trade for radio receiving sets and electrical refrigerators.

Another local manufacturer of radio receiving set apparatus in the early days was the Fishwick Radio Company, with shops at 417 East 8th Street. The CLEAR TONE RADIO COMPANY was at Essex Place and McMicken Avenue in Walnut Hills. In 1938 more than a hundred Cincinnati concerns and individuals were engaged in the repair and maintenance of home and automobile radio receiving sets. That year combined employment in both the manufacturing and repairing phases of the radio industry amounted to about 1,500. The annual payroll was estimated at more than two-million dollars.

The Robert Mitchell Company on West Second Street established in 1834 at a shop at 21 East Second Street as Mitchell & Moore was for many years Cincinnati's most popular maker and distributor of quality furniture. Most of the table and console wood cabinets for both Crosley and Midwest radio companies were built in this plant. Powell Crosley also designed and built a baby-walker which he sold the rights to Frank Taylor of Norwood, Ohio. It was Taylor who made these walkers under the trade name of "TAYLOR-TOT." Most people still call these walkers by that name.

I had worked also at Mid-west Radio in 1934. There were four floors of space there. Actually the Broadway side was more-or-less a showroom with offices on the first floor. There was a narrow passageway running the length of the building to the rear side where the shipping dock was on Cheapside Place. Cheapside ran north and south between ninth and Court Streets. From the third floor, where I worked as a trouble shooter, I could see across the street through the large old-fashioned windows, the Pittsburgh Plate Glass Company building on Eggleston and Court. It came to a point, as the building was three-sided like a flat iron. The point was at the junction of Broadway, Eggleston, and Court Streets. Several blocks over, across Gilbert Avenue, I could see the Daylight Building which housed the transmitter of WCPO on the rooftop. The radio tower was clearly visible as a silhouette against the Mt. Adams hillside, with the Rockwood Pottery Building sitting atop. This radio tower was quite a vision for me. It fascinated me to know that radio programs were sent out from this steel structure. I thought that people who worked in broadcasting were the epitome of the industry. Actually in the early days they were the top-grade technician/engineers, and to a certain extent this would apply to the present day. There is a distinct difference in backgrounds between yesterday and today. Most of the early radio engineers were garnered from the radio service shops and had studied on their own to achieve their goal. Today, with schools and specialization, it produces an entirely different type of an individual. A person in the old days had to do everything, from building equipment, to operating it, and do an occasional stint as an announcer too.

I had first worked at Midwest Radio as a mechanical troubleshooter on the 18-tube "Imperial" radio. This was a fine set, incorporating many features not found in modern radios. Far in advance of its time, with novel ideas like a "Volume Expander Circuit" to increase the dynamic range of sound to imitate the original broadcasts as near a humanly possible. It had an excellent audio amplifier with one of the best large 12-inch speakers available. One of the best features, at least for me, was the five shortwave bands. This set would tune in every frequency that was being utilized in those days. The highest frequency band went to as high as 55-megacycles, which was real pioneer work in those early years. No other radio on the market could make this claim. In those days all the assembly work was done on one large work bench, not as later on with assembly lines. Each of us, when we tested a radio, used the actual speaker of the radio to listen in which was contrary to what was being done in other factories where they used a "dummy load" to cut down the noise in the building. In other words, most factories used meters to test with, whereas at Midwest we really listened to each radio. You can imagine the din with over 50 large radios going almost full blast at once! Later on when I worked at Crosley we used the dummy-load method and this was far less noisy. Crosley even went a step further and used a test cubicle enclosed with copper screening which eliminated electrical noises from outside sources. So complete was this shielding that it was impossible to hear even a local radio station inside these rooms.

If a set was checked out as being defective we tagged it to help repair it in the shortest time. One of the most common ailments was called "noisy when jarred", or abbreviated NWJ. We simply tapped the chassis with a small mallet and if noises occurred at this time we rejected the set. The radio was then sent over to the repair bench which we fondly called "The hospital." There was a young lady there who could change defective parts quicker than any person I ever saw. She could yank out a bad "IF" transformer, for example, quicker than a wink, and install a new one even quicker! I don't recall her name, but she sure was adept at this job. There were three final check benches. One of the persons who worked at this test bench was Herndon Stone. Another person was Mr. Murphy, and a third was Roger Wetz. Now Roger later worked at WCPO as chief engineer during the war. He was also the possessor of one of the early Dodge autos. If you've forgotten those early cars, it may help to jog your memory by saying that the gear shift was reverse of what is common today. This meant that the reverse gear is where high gear is today, or in other words the whole works was backwards. This is not meant that Dodge was not a good car, it certainly was, I am only pointing out that there were no standard methods used in car construction in the early years.

In the matter of brake bands used in these early cars there were also no standards. Many had bands on the outside of the drums, some only had two wheel brakes. To make a long story short Roger picked me up to go to work one cold wintry morning. He had little dreamed that water would accumulate on the brake bands and later freeze as the wind blew through the wheels. Well, Roger picked me up, as I said, and we proceeded on our way downtown. All went well till we reached Peebles corner and came over the top of the hill. We saw a streetcar which had stopped to pickup a passenger, but neither of us paid any attention to this as we figured we could stop if we had to. Turned out the brakes had frozen and instead of slowing down we went skimming between the streetcar and the curb, and on down the hill. Rog tried to put the car in gear, but that was impossible as there were no such things as synchro-mesh gears in those days. It was impossible to change gears without some fancy clutch work. Faster and faster we went, past Motorola radio, past Eden Park, Past Baldwin Piano Company, then Gilbert Avenue leveled off a little and we slowed down a little. Then on down the rest of the hill lickity split to the 8th street viaduct where we made a righthand turn onto Court street. I imagine we were going almost 35 MPH, and in those days that was fast. Plenty fast for me especially with wooden wheels. I had visions of splinters of wood flying in all directions, like toothpicks, before we negotiated that bend. Well, all went well, and we coasted right up to the door of Midwest Radio. Roger looked at me, and I looked at him. and without a word we both got out and walked to the time clock and began work. The next morning I rode the streetcar!

The foreman of the radio company was Bob McGrew who later went with Crosley radio. But I am getting ahead of my story. After the sets were built they were final-checked for dial alignment and an overall performance tests. and then they were sent to the shipping department. At this point there was one more test. This was to test the whole radio to see what would happen in transit by the Postoffice Department. As I said, most of the orders were mail orders so we had to be sure all the radios could survive violent handling. We wanted a test rigged up that would duplicate this rough handling. We rigged up a large board, 2 by 10-inches, and about 15-feet long, and on one end we installed an old washing machine motor with a quarter-pound weight, off center, so that it would vibrate and really shake when the motor was run. We suspended the large board from the ceiling with large coil springs. We then bolted the radio to be tested to this board and turned on the motor. When we first built this tester the thing shook so hard that tubes would fly out of their sockets and hit the ceiling! We slowed the motor down a little after that and ran a test in this manner for 1-minutes on each set. If they survived this, and could be played, they were considered ready for shipping.

Downstairs, in the rear, was the time clock on the wall and a rickety set of stairs leading to the upper floors. These floors had cracks between the boards wide enough so that when a person on an upper floor walked, dust and dirt would fall on the floor underneath. The repair shop was located in this rear portion, with a small room of its own. Pat Forney, WGEDX, had charge of this department. I'll never forget the time I got a Midwest set to repair back in 1932 at a shop called "Radio Tube Center" on Sherman avenue in Norwood. Well, the owner of this particular Midwest radio had turned the band-switch all the way around and broke off 150 wires attached to this switch. All the wires were the same color and I just couldn't figure out how it was supposed to go. I called Pat at Midwest on the phone to get the information. It took me two whole days to get this working again.

Radio servicemen from all over the world would call Pat to find out the tricks on how to service these sets. They would ship them back too, to get them repaired right at the factory. They also would inquire about the correct type of antenna to use to tune the shortwave bands in.

Most of the early radio parts stores got their start in selling parts by contacting the radio manufacturers to salvage their old sets for parts to sell to would-be radio men in this area. All the Midwest radio transformers had eagle wings embossed on the covers. They were easy to identify. Midwest also used nickel plated bar-knobs, and a front panel that appeared like wood. Many of their

sets had a tuning dial with green and red colored lights which turned all green when the station was properly tuned in.

One of the foremen, who was a good friend of mine, was Yates Deere. We had a paging system there with speakers on all floors. When there was a call for Yates, the girl would announce over the system :Yates Deere answer the phone." It came over the speakers as "Yates DEAR answer the phone.: Of course we all got a charge out of that.

I had worked at numerous radio service shops in the old days. The first was a job after school at this Radio Tube center in Norwood. It was owned by a family named Cooper. There were two brothers, Don and Dick, and a sister Jean, who were active in running this shop. Don did all the bench work and Dick all the outside work such as making calls, taking sets back, and installing antennas. An older brother was Robert Cooper, and it was he who built the first WSAI in Norwood and later went to Mason Ohio with WLW.

The shop also printed a list of shortwave station in the paper each day. Each day they would list all the foreign radio stations and the best time to listen for them. One night they took me out to their home in Terrace Park to listen to their Philco radio which was tuned to GSD, Daventry, England. I heard "BigBen" strike 12 oclock and this was quite a thrill. It seemed like it was right in the room with us.

They had a Model "T" Ford which they used for delivery work such as picking up sets from Pogue's downtown. One day I borrowed it to go home for lunch. It had a spark and gas control on the steering wheel, if you recall. Well, I arrived home and turned the switch off, but the motor kept running. I ran in the house and called them and asked "How do you stop it?" Don told me: "Push the spark rod to retard." I did this, and it did stop. Model "T" days would be a story in itself.

Most of the repair work that was done in those days amounted to actually building a radio all over again. There were no service manuals, except on a few makes like Majestic (mighty monarch of the air) and some few others. Repairmen were really designers instead of mechanics as today.

Later on I worked for Crosley as a trouble shooter and then to what was known as "TEST CONSTRUCTION", where we built test equipment for the assembly line.

Cincinnati had its share of companies making radios. Names like; CLEARSTONE, MIDWEST, CROSLY, CINO, KODEL, RADIOVOX, PRECISION, etc. Parts companies like; RANDEL RADIO CO, CINCINNATI RADIO at 145 Fourth St., RADIO SHACK on Gilbert avenue, RELIABLE BATTERY CO. on Central avenue, BLAIR & BLAIR at 2502 Vine st., F.D. LAWRENCE CO. at 217 4th st., AINSWORTH -GATES at 416 Main street, OHIO RUBBER CO., CINCINNATI STORAGE BATTERY CO. on Moorman avenue, NATIONAL RADIO SUPPLY at 216 West 12th street, CARL ARBOGAST RADIO SUPPLIES at 3408 Harrison avenue, AIDIFEN BATTERY Co. on Race Street, EISEMANN RADIO EQUIPMENT CO. at 210 Bell Block and the COOPER CORPORATION who made a rechargeable "B" battery. It is interesting how some of the companies got their names. Take the name AIDIFEN as an example. This was owned by a man by the name of Bill Threm who had an amateur call of 8FN. Phonetically this comes out when spoken as AIDIFEN-try it and see.

There was also a Mr. Hamm Fordyce on 12th street near the Parkway, who operated a radio Parts store called "CINO". Powell Crosley bought his first radio parts at this store. Mr. Fordyce also operated one of the first radio stations using the call letters WIZ with his studios alongside music hall in 1919-20.

CINCINNATI'S FIRST BROADCAST STATION

1919

WMH-----WKRC

Actually the first broadcast station in the United States was WHA, The University of Wisconsin, Madison, Wisconsin, according to the 1970 "World Almanac". There were other broadcasts made, some prior to this date, in Cincinnati and elsewhere. It must be realized that this country was involved in the first world war and the government ban on transmitters was not lifted until July 31, 1919. But WHA at the University of Wisconsin, using call letters ~~9XM~~ in 1918, during World War I, when other stations were ordered silenced, 9XM operated under special authorization to continue its telephonic exchange with U.S. Navy stations on the Great Lakes. After the war programs were directed to the general public.

The WHA letters replaced the 9XM call on January 13, 1922. Thus, the University of Wisconsin station, under the calls 9XM and WHA, has been in existence longer than any other. (marker erected 1958)

From the first page of WHA's anniversary book they qualify their statement in the following manner. 'Most claims to extreme old age are based on human memory, scanty records, mighty legends, and good publicity. So it is with radio.

"To the earnest question, 'Whose station is the oldest in the nation?' comes a many-voiced reply: 'Mine is.' To judge which reply is to be favored with the label of absolute truth, one must answer such questions as 'Has the station been in continuous operation since the beginning?' and 'Has the station been licensed to the same party, remained in the same approximate location, and on the same frequency?' Even if one could decide that these questions are relevant, the most controversial puzzles still remain: 'When does an experiment become a broadcast?' and 'What do the words regularly scheduled mean?' Since so much concerning the beginnings of American Broadcasting is obscure, the answer to our initial question has become a matter of pride and choosing sides. The marvel that is radio began as the enterprise of numerous experimenters in bedrooms, shacks, and rooftop laboratories. They are the true beginning."

With the above in mind let us look back through the years through the medium of several recordings I have of persons who were on the scene in those days. First, here is the account of William M. Stephenson, who was one of the early pioneers in radio, and who ran a radio service shop at 509 Scott Street in Covington, Kentucky, from 1928 until his death in 1969.

"This is W.M. STEPHENSON, owner of the 'Radio Service Shop' at 509 Scott street, Covington, Kentucky, located in the same building since 1928. In 1922, before I was in the radio service business for myself, I worked for Howard Gates in Cincinnati while I was going to high school. We built a transmitter and receiver and sold it to the Sullivan Coal Company at Whitmer, West Virginia. After it was finished and tested out, I went up to install it in the commissary of the coal company. We had to put an aerial between two hill tops about 3,000-feet apart, or more. While we were putting the wire up with pulleys, well, before that, we had to clear the hills of trees so we could string the wire up. As we got it almost up one of the cables broke. I rushed into the commissary with the thought in mind that I would flag down the next train so I could send a telegraph message, because we didn't have a telephone connection. I gave the telegram to the conductor, and he said he would send it from the next town. In the telegram I had stated: 'ANTENNA BROKE DO NOT COME UP.' Mr. Gates was to come up the next morning, he didn't come up, and we sent another telegram when we finally got the antenna installed. When he did arrive he showed me the message he had gotten: DO NOT COME AUNT KENNA IS BROKE. That's the telegram which he received, but he had surmised what I had meant by it and came up the next day.

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I had the transmitter/receiver all hooked up and ready, and checked it out. The receiver was battery operated and used earphones, not even a loud speaker. So a bunch of the fellows from the mountains hung around and listened to our conversation and to us talking over this transmitter which was a 200-watt job, supposed to transmit back to the home office in Williamson, West Virginia. I told one of the fellows to put the earphones on. This was after we were through testing it and I had tuned it into 'The Wave from Lake Erie' WTAM in Cleveland, Ohio. When this fellow heard music come through those earphones he got scared and his eyes bugged out and he grabbed the earphones off his head and ran! Scared him to death, hearing music come over something hanging on his ears. He didn't know what it was all about and maybe the devil was after him and that's enough for him.

Then we came back to Cincinnati (1922) and began work on a new transmitter on the roof of the Hotel Alms. We got the thing operating and a man by the name of Gene Wesselman operated it. In the process we got sued by RCA for building a transmitter without their license to manufacture transmitting apparatus. So rather than take beating financially we just sold it to Clarence Ogden with the KODEL RADIO CORPORATION who made "B" eliminators at that time. Mr. Gates had taken on a partner by the name of Lee Ainsworth. The two couldn't get along very well. One day Mr. Ainsworth went to a trade show in Chicago and that evening he was smoking in bed and the bed caught fire and he couldn't get out of the room. He leaned out the window of the 17th floor and fell out and was killed. Mr. Gates then sold out his radio interest. He got a job with the King manufacturing company at Buffalo, New York. The King company made sewing machines, mild separators, and things for other companies, and of course they made the KING radio."

That ended the tape recorded past and we now turn to a 1940 edition of the Times-Star with further information on Howard Gates. "In 1923 Howard Gates, 26-years old, electrical engineer, built a small receiving set. So enthralled was he with the mysteries of radio, that he invited Dan M. Myers, manager of Hotel Alms, to listen to his "magical Box." In the back of his mind he was entertaining visions of building a broadcast station, but had not the wherewithal to do so. Dan Myers, alert business brain, pictured the possibilities of the endeavor about which young Gates was so enthusiastic, and offered him space in Hotel Alms to set about building his broadcast station.

The new operating station was housed in three rooms-in one of which was a bathtub filled with water to be used as an emergency water supply for cooling the tubes. The antennae was attached to the top of the smokestack and the elevator shaft penthouse. 150 batteries supplied the power and contained 1,000-cells which had to be hand filled.

Originally the call letters of the station were WMH and Lee Ainsworth joined Mr. Gates as a partner in the broadcast activities in 1924. Ainsworth-Gates also manufactured receiving sets. That end of their business finally required so much time they sold the station. The inventor of the first battery eliminator, Clarence Ogden, bought it. Afterward on March 25th, 1925, letters were changed to WKRC.

The early history of the station, both as WMH and WKRC was characterized by the fact that it had to alternate time with WLW and WSAI. One month WKRC operated on 920 kilocycles, the next at 710 kilocycles. Power was constant at 1,000-watts.

June 1st, 1927, radio commission changed the frequency to 900 kc and other changes followed. On November 11th, 1928, big improvements came. WKRC was given the privilege of operating on 550 kc, the ideal broadcast channel, and has kept it ever since. Later Ogden sold to John S. Boyd who improved the station greatly. Granted his license on October 28th, 1929, he applied for, and two months later received, a permit to install a Western Electric direct crystal controlled transmitter. His permit also granted 500-watts power and an additional 500-watts for experimental purposes. On January 1st, 1930, Boyd created WKRC incorporated. This corporation was composed of Boyd, E.A. Mittendorf as station manager, and Samuel Pickard. On November 1st, 1931, CBS purchased WKRC and on February of 1937 power was increased

WKRC Schedule for September of 1928-245.3 Meters
not on the air until 10 p.m. on Mondays

10:00 PM.....Musical program
10:25 ".....Recipe period
10:35 ".....Traffic Talk
11:00 ".....Time Signal
11:05 ".....Land O' Dance

off the air until following evening

to 5000-watts daytime, and 1000-watts nighttime. In 1940 Ruth Lyons was program Director, Harold M. Coulter as sales manager and promotion and advertising. Margaret Moloney was the director of public relations.

Now to try and fit the pieces together. I now quote from the book "They Built A City" published by the Cincinnati Post in 1938. "Although as early as 1911 a Cincinnati was licensed as an operator of wireless telegraph, Cincinnati's interest in the new radio was purely amateurish until 1919. In that year the Precision Equipment Company established an experimental broadcasting studio using the call letters WMH from a second-floor room at Peebles Corner at 2437 Gilbert Avenue. Several retail stores selling electrical products began to stock the crystal sets; and talkative people at social gatherings usually asked, "Did you hear so-and-so last night?" This interest in radio was carefully noted by the manufacturers. Early in 1920, less than six-months after WMH went on the air, the first Cincinnati-made crystal sets were in use. The first regular broadcast of a national event came on November 12, 1920 from KDKA, Pittsburgh, which sent out the returns of the Warren G. Harding-James M. Cox presidential election. It may be of local interest to know that both of these men were Ohioians.

Meantime, progress at WLW epitomizes that of radio in general. In 1921 Powell Crosley, Jr., declared that if people were to buy sets it would be necessary to furnish listeners with entertainment. He built a small experimental broadcasting station using 20-watts power and the call letters 8CR. Nightly in the living room of his home Crosley played again and again a victrola recording of Rimsky Korsakoff's "Song Of India," and asked all who heard the broadcasts to telephone him. The answers were few, but they sufficed to convince him that he should go ahead with his experimenting. At the time the few broadcasting stations in existence operated 'hit or miss' programs on an irregular schedule. In July 1921 Crosley was granted an experimental broadcasting license; a few months later he moved his transmitter and equipment to the Crosley on Hamilton Avenue.

In attempting to explore the origination of one radio station it is necessary that we look at two at once, because of their common beginnings from this one station of WMH. It will shortly be seen that Mr. Crosley bought the Precision Equipment Company and manufacturing plant, but for some reason-perhaps lack of knowledge of the value of a radio license-he did not actually purchase the radio station license.

In March 1922 the first license under the call letters WLW was granted. In 1923 Crosley acquired the controlling interest in station WMH, which had been operated since 1919 by the Precision Equipment Company, and discontinued the station. Ever since, Crosley has concentrated his interest in WLW. In 1924 he established the Crosley Radio Corporation.

We digress for just a moment to illustrate the relationship between the public and this new contraption called radio. A Cincinnati, the city-editor, had his doubts when Charles G. Brooks and A.L. Riesingberger hooked up a radio receiver on the Coney Island Queen's dance floor, in 1921, with the intention of

receiving a broadcast from WMB of music from the Precision Equipment company at Peebles corner. There was one local newspaper city-editor who refused to believe it. "What you've done," he said to Corey's press agent, "is this, you've hidden a phonograph record player under the cabin floor. Bring me a story of mermaids in Corey's Lake Como, or sea serpents in the river trailing the Queen, and I will print the stories, but not this one of music on the air waves, impossible!"

Precision Equipment Company made a line of radios called "ACE." One of the men who tested them was Dave Conlon, who later worked as an engineer for WLW. Several different models of radios were built and a one-tube set sold for \$12. The early sets were all battery operated with the exception of using 'b' eliminators running from the electric power lines. Most of the radios were sold, however, to users on farms, where electricity was not available. Letters were sent in from all over the country letting them know listeners received the programs and wanting to know how much one of their radios cost. At one time several hundred letters were received per day. On many nights when they were on the air somebody would accidentally touch the wrong thing and all transmissions stopped. This was common in those days. But it was always repaired and things went on as usual.

At this point I add the fact, based on hearsay evidence, but nevertheless it came from many sources, so it can be safely assumed there were at least three other stations on the air from Cincinnati in 1919-20. A Mr. Lamm Fordyce, who operated the "CINO" Radio Company on 12th street near the Parkway used the call letters WIZ and did send out music over the airwaves. Another was WAAD, experimental, located in the Ohio Mechanics Building on Central Parkway at Walnut street, and another station licensed to an opt of town company, which I don't know at this time if they ever got on the air or not. The call-book listed them as WABI in Norwood, Ohio, but as things can become confused I think now that there was a mistake in the listing and the Norwood was a city in another state, not Ohio.

On the subject of "Hit-Or-Miss" programming it must be remembered that the government specified only a wavelength of 360-meters was to be used to play phono music and if news, weather, stock market reports, etc., were to be sent out over the air they were required to move to another frequency for this. WMB was usually only on the air on Tuesday and Thursday nights and sometimes on Sunday afternoons with music, at all other times with news on the other frequency I had mentioned. During the periods when no local Cincinnati station used 360-meters became known as "Silent Nights" and that is when local Cincinnati people did their listening for out-of-town stations.

On May 3rd, 1922, a newspaper listing said this: "A program of unusual variety will be sent out from WMB broadcasting station tonight on the usual wavelength of 360-meters with music by The Chicago Club Orchestra. They will render, Song of India, Gypsy Blues, Everybody's Step, When Buddha Smiles, Angel Child, Down the Old Church Aisle, The Shiek, Souvenir, Cutie, Good-by Shanghai. Then on May 10th, 1922, The Cincinnati Conservatory of Music provided the program.

The Precision Equipment Company was located at 2437-39 Gilbert Avenue. The Federal Government had a ban on all radio transmissions, due to World-War 1, and this was not lifted until July 31, 1919.

When WMB signed on the air the chief engineer was Harry Breckle, who had recently been released from active duty as a Commander in the U.S. Navy. A Mr. Thomas New was the manager. Other names connected with this station were Russ Blair, who also operated an early amateur radio station 8XB, and who lived at 3930 Ivanhoe Avenue in Norwood. Harry Breckle's call was 8XB.

Now an item from the "Enquirer" of March 28th, 1944: "Thomas A. New, Consulting electronic engineer, pioneer Cincinnati radio broadcaster, now living in Los Angeles, but who is visiting Cincy to pay tribute to Clarence Ogden another local pioneer in radio, who died Monday.

New recalls how he opened the very first radio station at Cincinnati that broadcasts news and musical programs to the general public. He showed the newspaper clippings telling about his pioneer station, 8XB, that he opened at 2437 Gilbert Avenue in September of 1919.

he said, 'I was in the business of manufacturing and selling radio equipment in those days, being then president of the Precision Equipment Company. We were one of the first to be licensed to make the then famous Armstrong Regenerative radio receivers.' Said New: 'The station first operated under the call letters P.C. and soon after that the government issued our company a license under the call letters 8XB. I am convinced, after much research that this station, opened on Gilbert Avenue in September of 1919 was the first in the world to operate on a definite schedule of news and musical intertainment broadcasting. My opinion is that Cincinnati rather than Pittsburgh, deserves the credit for being the first station with regularly scheduled programs. We gave news programs everyday and musical programs in the evenings twice a week. In order to operate our station we had to have a commercial operator licensed by the Government, and our station operator was Lemuel M. Temple who is now in radio at Scarsdale, New York. I have Mr. Ogden in those early days, an enthusiast, regarding the future of radio and he deserves credit for his pioneer work.'

The obituary for Clarence Ogden: "Ogden, founder of radio station WKRC when associated with the Kodel Radio Corporation in the early days of the 20's was President of the "Automatic Electrical Devices Company" and also the Ogden chemical Laboratories here. Ogden once turned down an invitation from Thomas A. Edison, his friend, to follow any scientific line he wished."

In passing, it is well to note that the original company name of Automatic Electrical Devices changed to KODEL because the first radio that Mr. Ogden made looked like a KODAK camera and the fact that his wife's first name was Della combined into the word KODEL.

In April of 1925 it was said: "KODEL BUYS STATION WMH-WILL GREATLY IMPROVE IT." The Kodel Radio Corporation has just completed the purchase of broadcasting station WMH, Cincinnati, from the Ainsworth-Gates Radio Company. The station, which has been operating on wavelengths of 325.9 meters and 422.3 meters, alternating each month with stations WSAL and WLW, will continue this arrangement. However, the 500-watt power will be increased to 1000-watts, and additional equipment will be obtained from the Western Electric Company, which will make this station one of the best. Programs will be among the most interesting in the country.

The studio, located on the first floor of the Hotel Alms, will be entirely changed. The Kodel Radio Corporation will take over the station early this month in its improved condition.

And from a tape recording made by Ed Konnersman, W4LBX, I quote:

"The first station that I remember was WMH the precision Equipment Company which was located up on Peebles corner about two doors below Peebles Grocery. These people did make capacitors, and I have now forgotten what else they made." I asked Ed: "Is this the same station that later turned up on top of the Hotel Alms?" Ed replied: "No this station is not to be confused with the WMH which was later started on the Hotel Alms by Edward Gates and I think before he finished it he took on a partner by the name of Lee Ainsworth, and this was the Ainsworth-Gates Radio Company. They manufactured two receivers, one was called the "TORIDYNE" and the other was just a plain tuned-RF type of set. The show rooms were located on Main street on the east side, about four doors from Third Street going up the hill. The chief engineer was Allen Wood and his assistant was Gene Wesselman."

WMH used a horizontal wire for an antenna in the beginning and sometime during 1925 this was taken down from the Hotel Alms and the two towers you see today (1971) are the present system. As these towers are on the roof of a hotel there were elaborate precautions taken to insure good mechanical strength to the roof itself. Because WKRC is at the extreme low-frequency end of the broadcast band it means that its towers would normally be taller than any other station, but because of the weight factor of the hotel roof they are considerably shorter than they should be.

I can summarize all the foregoing facts into this: In September of 1919 WMH went on the air from 2437 Gilbert Avenue with the Precision Equipment Company as the owners. In 1922 Crosley bought the manufacturing end of the business including the factory equipment. Somehow the broadcasting license was not considered as a separate entity. Crosley probably had reasoned that all he had to do was buy out the company, and this eliminated his competition. As the license was issued, in a sense, to the public interest of Cincinnati as far as the government was concerned, it didn't matter who actually owned the station. I think this error in judgment on the part of Mr. Crosley is understandable when radio itself was so new, and it was not like any other business.

Through the courtesy of WKRC, who supplied me with a copy of a letter explaining the change from Ainsworth-Gates to Kodol Radio ownership, I now re-type the original letter. It is type written on a letter and I regret that I cannot exactly duplicate its form, only the words.

M I D L A N D A D V E R T I S I N G A G E N C Y

Atlas Bank Bldg.

CINCINNATI-The nation's crossroads

March 21, 1925

The Kodol Radio Corporation
Mr. C.E. Ogden, President
120 West Third St.
Cincinnati, Ohio

Dear Mr. Ogden:

This is to confirm our verbal agreement relative to the operation of the broadcasting station owned by your company, now known as WMH, in the Hotel Alms.

STUDIO OPERATION

This agency will arrange all programs, assume all studio direction, announcing and general studio affairs, and to create, write and follow through to publications all publicity both for the broadcasting station and The Kodol Radio Corporation products, for a service charge of \$200.00 per week.

It is understood that Mr. Eugene Mittendorf will join this agency, and must devote his entire time to the studio, arranging all programs etc., under our supervision and assistance. It is understood that Jack F. Koons of this agency will assume all publicity responsibility for the broadcasting station and The Kodol Radio Corporation products.

The Kodol Radio Corporation is to provide stenographic service, mimeograph, necessary supplies, stamps, telegraph tolls where authorized, and final mailing, both for publicity and studio correspondence and that this work is to be done in the office of The Kodol Radio Corporation. The Kodol Radio Corporation, if it deems it advisable, is to subscribe to a national clipping bureau to keep record of publicity.

SALE OF TIME

The Midland Advertising Agency agrees to sell, supervise, arrange, and to censor all sale of time, under supervision and control of the Kodel Radio Corporation, for the broadcasting station, all contracts for the sale of time to be made in triplicate, one copy to be filed with the Kodel Radio Corporation, one copy with the Midland Advertising Agency, and one copy with the advertiser.

On the sale of time, the Midland Advertising Agency is to receive compensation based on the following commission arrangement:

Twenty percent (20%) on all time sold where the net return to the Kodel Radio Corporation is \$50 or under.

Twenty-two and one-half percent (22½%) on all time sold where the net return is over \$50 and less than \$100.

Twenty-five percent (25%) on all time sold where the net return is \$100 or more.

The net return on all time sold is understood to mean the money which remains after deducting cost of talent employed during the time sold, and remote control "line charges" when these are necessary to broadcast an advertiser's program.

The Kodel Radio Corporation is to bill and collect for all time sold, with whatever assistance the Midland Advertising Agency may afford. All commissions to be payable to the Midland Advertising Agency monthly, as bills are paid by advertisers.

On hook-ups with programs originating from foreign (out of town) broadcasting where revenue is obtained the Midland Advertising Agency is not to participate in any earnings.

It is understood that this agreement between the Kodel Radio Corporation and the Midland Advertising Agency shall remain in force for one year from DATE excepting in event of permanent discontinuance of broadcasting station.

Very Truly Yours,
Midland Advertising Agency

accepted

Clarence Ogden

for the Kodel Radio Corporation

We have now brought WKRC to May of 1925. From that time until 1931 when CBS bought it, things remained in the foregoing condition. From 1931 through the 1937 flood in January until 1939 CBS controlled WKRC. We shall pick up the story in a moment.

By the fall of 1919 the nation was just barely getting back in stride to peace-time economy after the war years. The 20's were to usher in the roaring twenties as a release from war-time tension. "Flapper Fanny," women's suffrage, the first electrical exposition in 1922 at Music Hall, the jazz era with Paul Whiteman, self-starters on autos, silent movies, water-powered washing machines, electric ironers, electric streetcars, the gangster era, bath tub gin, and on the Cincinnati scene preparations were underway for the annual "May Festival" for 1920. A chorus of 350-voices planned under the direction of chorusmaster Frank Hartzel with Lawrence Maxwell as president of the event. Sportsfans were in for the greatest season the Redlegs ever had, and the first pennant.

It's October 9th, 1919, a Thursday, and the sky had been overcast all morning, but at noon, the Sun, after being obscured for hours, broke through the pall of clouds and its appearance was hailed as a good omen for our Redlegs. The series ended in the eighth game at 10-to-4 for the reds against the Chicago Whitesox. The Reds came to bat in the first inning at Comiskey Field, Chicago, and Williams put one over for Rath, who, however, did not hit at it. The second pitch was a ball, but on the third Rath swung and popped short to the left, Rissberg making the catch. Williams continued putting them down, and Daubert hit the second one for a line drive single to center that Leibold just missed getting up to. Groh fouled off several, one going into the left field pavillion. Then he hit a short single to right which Daubert could not go any farther than second base. With the call 1-and-1 Roush slammed at the next pitch for a double to the right field pavillion, Daubert scoring. Duncan also had a call of one and one when he whaled away, the result being a double to the left field corner that scored Groh and Roush. That ended Williams, the southpaw who manager Gleason said no club on earth could beat three straight games. "Big Bill" James had but little time to warm up, and he did not get control until after he had walked Kopf. But he quickly fanned Neale, who swung at two of the three strikes but did not hit the ball. The first ball pitched to Hariden was so wild that Schalk had difficulty in recovering it in time to prevent Duncan from scoring. But his good effort did not avail, for Hariden dropped a Texas Leaguer. Eller was applauded when he went to bat and while he was fouling two off Hariden stole second, the White-Sox refusing to permit the attempt at a double steal. Eller ended the inning by flying to Felsch. FOUR RUNS. FIVE HITS. NO ERRORS.

In the sixth game of this series W.A. Phelon, sports writer for the Times-Star said on Tuesday, October 7th, 1919: "With their backs to the wall, but hopeful despite their four defeats, the White-Sox today met the Reds in the Sixth game of the world series. The Reds and the nearly 30,000 fans felt that the contest would be the decisive one and that this evening Moran's men would be the world champions. It was a contest between southpaws at the start, Walter Kuether against Dick Kerr, each hurler having one victory to his credit. The scenes preceding the game were suggestive more of a celebration over a victory accomplished than the gathering of a multitude to watch a contest in which trained athletes were striving their utmost to triumph in a sport as uncertain as a baseball game."

In that year of 1919 all the news was flashed across the country and around the world over Land Telegraph Lines. There were many Morse Telegraph operators who sat in the press box high atop Redland field. If you were listening to those dots-and-dashes flasing the news you would have copied this: "The elite of the teams of the two major leagues of baseball, the highest type of human facility in diamond skill and lore, matched skill and wits. As fast as the halves were played the results were flashed across the continent, underseas, and half the world away. Baseball was king, and it was Cincinnati's day."

As I write this, it comes to mind that I had no idea that I too would be sitting up in the press box 22-years later. It is a shame that radio did not air the baseball games until almost ten years later with WFBE and this making a star out of Harry Hartman. If radio had carried the games in those early years, with the picturesque speech so characteristic of that year, you would have heard a voice coming through the crackling ether waves right into your earphones saying: "It is a beautiful day in Cincinnati for the first game of the World's series. The White Sox will be at bat first. Umpires will be Rigler at the plate, Evans at first base, Quigley at second, Nallin at third...Bleacher gates closed early...great solid blocks of white showed where the shirt-sleeved multitude was gathering...Shirt sleeves at a world-series in October?...Never was there such a sight in the history of the classic-never was such weather centered on the post-season games before." The first game was marred by the death of Joseph W. Pugh, 63, former chief of police of Covington and well-known in Kentucky politics, died from the excitement of the opening ballgame of the world series yesterday, October 2, 1919.

-46- The curtain falls on the first act in our little theatre off Times-Square. There will be smoking in the lobby...our scene shifts to...47-years later...the scene is now in the Sheraton Gibson Hotel, Cincinnati, Ohio, where Mr. Lawrence H. Rogers is giving an address to the Newcomen Society of North America. Mr. Rogers is president of Taft Broadcasting Company, and he is now the guest of honor this October 6, 1966. A hush falls over the audience and we hear the voice of Robert Considine, distinguished news analyst and author, as he introduces Mr. Rogers..."As our scene opens we establish the indisputable facts that Henry Montague loves Adeline Stanley...and Adeline Stanley loves Henry Montague. A few short establishment shots without dialogue firmly implant in your minds that Adeline Stanley is the classic heroine: demure, shy, well-bred, beautiful. A few short sentences, a flashback scene or two, and we know that Henry Montague is a prototype hero...earnest, sincere, hardworking, good prospects...a thoroughly acceptable suitor for the hand of the fair Adeline.

Then the bombshell!

The Montague firm is busted...bankrupt. Creditors and investors alike are lucky to get three cents on the dollar.

Adeline's father is beside himself with rage. In a stormy interview later that day he gives young Henry his walking papers.

"Never darken my doorstep again," bellows the old man. "The hand of my daughter shall never go to a penniless whippersnapper!" ...or words to that effect. Exit Henry Montague.

But Hark!

What's the low moan and the dull thud from the adjoining room?
You guessed it...

Extended on the hearth rug, grasping the fender with her tiny clenched fists, lies the ill-fated Adeline. She had been listening at the keyhole.

Peyton Place...the TV serial?

One Man's Family...the old radio soap?

No...both good guesses, but both wrong.

The date is April 25, 1840...one hundred twenty-six years ago...the mystery melodrama is entitled "Trials Of The Heart" and it occupies four columns of the front page of the first edition of Cincinnati's first daily newspaper under the masthead...SPIRIT OF THE TIMES.

This, then, was the forerunner of the CINCINNATI TIMES-STAR, the newspaper complex whose offspring became Radio Cincinnati and grew into the modern communications giant known as Taft Broadcasting Company.

Both ironic and prophetic that the melodrama which has been so much a part of the heart and soul of radio and television occupied so prominent a place in the obscure origins of the company over a century and a quarter ago.

Today the electronic great grandchildren of the old SPIRIT OF THE TIMES deal in instant communications...not only on a nationwide and a world-wide, but a cosmic scale. How oddly prophetic and ironic that before the election of Abraham Lincoln, the Cincinnati TIMES proudly published the boast that it "astonished the public by its presentation of the first complete election returns in 1857 only seven weeks after the official count was known in Washington." Only two weeks ago, four and a half million American households in the seven metropolitan centers served by Taft Radio and Television heard President Johnson himself announce that Attorney-General Katzenback had been appointed the under-secretary of State...even before the Attorney General heard about it. In fact, Mr. Katzenback was notified during his delivery of a speech by an aide who had heard it on his transistor radio!

To borrow a favorite trick of the melodrama writers...the flashback...I want to express most warmly to all of you who have joined us here tonight and to American Newcomen my appreciation and that of my colleagues for this opportunity to tell the story of Taft Broadcasting Company and to salute our founder and leader, Hulbert Taft, Jr. Those who know him well know he is painfully embarrassed by public accolades. So rare is the opportunity to heap them on him while he is present and relatively defenseless that I intend to take full advantage of it. He may never allow it to happen again.

The Taft name became synonymous with Cincinnati and ultimately with this enterprise in 1873 when the TIMES was bought by Charles Phelps Taft, son of Alphonso Taft, Ambassador to Russia and Secretary of War in the cabinet of President Ulysses S. Grant, himself a local boy from Point Pleasant and Georgetown, just over the hills to the east. Mr. Taft merged the TIMES with the CHRONICLE in one of the earliest forerunners of the newspaper consolidations that are becoming increasingly necessary. In 1879, Mr. Taft and his father-in-law, Mr. David Sinton, purchased the Cincinnati EVENING-STAR, and after a series of consolidations to rival the recent New York WORLD-JOURNAL-TRIBUNE merger published the first edition of the Cincinnati TIMES-STAR on June 27, 1880. It continued to be published by the Cincinnati Times-Star for seventy-nine years.

Charles Phelps Taft remained as publisher of the TIMES-STAR until his death in 1929. He was succeeded by his nephew, Hulbert Taft, Sr., who was editor until his death in 1959.

Many are the versions of the efforts by the Times-Star Company to acquire the Enquirer, the latest from this very platform! Actually, there were two determined, but unsuccessful, efforts to buy or merge with the Enquirer, the last in 1969. Shortly thereafter, the TIMES-STAR was sold to the Cincinnati POST.

Meantime, back in the editorial room a young, energetic Yale graduate had completed his stint at Cambridge, which included playing hockey for his British cousins in Switzerland. He also had served as a \$30-a-week Washington reporter for the family newspaper. Now Hulbert Taft, Jr., was writing editorials under the exacting eye of his father. "Too exacting," he was heard to say. "All my editorials ended up in the wastebasket."

Following an early retirement, Hub Taft undertook a special assignment for the Times-Star Company. He traveled the nation's great newspaper centers to study the possibilities of facsimile transmission as a technical means of by-passing the enormous and mounting costs of newspaper production. Except for speed-up processes including stereo-typing and the high-speed rotary press, newspaper printing had not...and still has not...undergone an essential systems change in the 500-years since Johann Gutenberg revolutionized the world with his invention of movable type.

Hub Taft's exhaustive report on facsimile was delivered to the Times-Star board in 1939. In a word it said, "forget it. Facsimile will not replace the printing press, but radio might. Let's buy radio stations."

In that year the Federal Communications Commission announced new rules limiting group ownership of radio stations to seven. Some licensees were forced to divest. One of these was the Columbia Broadcasting System which had in 1931 bought pioneer radio station WKRC from the KODEL Radio Corporation in Cincinnati. CBS decided WKRC was one of the stations they would sell.

As a result of Hub Taft's facsimile report, the Board of Directors authorized the purchase for \$330,000. It's a matter of more than passing interest that the Board of Directors which voted the initial excursion into radio included, besides Hulbert Taft, his cousins: United States Senator Robert A. Taft, Charles P. Taft, David Ingalls, and Will T. Semple, Charles Taft and Dave Ingalls remain to this day on the board of the present company. Mr. Ingalls is vice chairman.

Within one month of Taft's purchase of WKRC, CBS switched its network affiliation...and most of the revenue...to another Cincinnati Station, WCKY.

Times were tough for WKRC. Hub Taft trooped ruefully but manfully every week to the newspaper office to shore up the radio finances. He got money to meet the payroll...along with lectures on the follies of youth and new fangled gadgets. The WKRC payroll was about \$5,000 a week and the revenues totaled about \$00!

-48- Finally the Times-Star ran out of patience...and subsidies. All of us have heard the apocryphal suspense story. It has been said that publisher Taft called his son one bleak day and informed him that \$25,000 had been deposited to the radio station's account and that was all. "No more, when that's gone, the radio station goes with it."

In all due respect, Hub Taft says his father never gave him that much heat. Needless to say, that was the last time money was needed to run the station. Development of local talent and programs plus an affiliation with the newly formed Mutual Radio Network changes the picture. WKRC moved into prosperity and many WKRC personalities became household names across the land. Heavy concentration on news and sports coverage brought fame to such names as Joe Garretson and Nelson King. The Yankee's "Boy Wonder," Waite Hoyt, was brought from Brooklyn to do the Reds baseball games. Cincinnati's most famous personality of all, Ruth Lyons, began her pattern for a generation of housewives on WKRC. No one will ever forget Tom McCarthy whose morning show established the leadership in the Queen City of WKRC. To this day Stan Matlock's program stands out from coast to coast as an example of mind over matter in a day of rock'n'roll formula stations.

While great careers were being founded and great stations were being molded, the FCC reported that the average wages of the 20,000 people employed in broadcasting in 1941 was \$45 per week.

During the World War II, Hub Taft went off to the Air Force while his brother David fought in the jungles of Burma. WKRC was guided through the war time growth period by Kenneth W. Church, recently retired from the Company as Senior Vice president. Following the war, the Taft brothers initiated the first major expansion and diversification with WKRC-FM and a noble experiment called "Transit Radio." Linking together a chain of stations in a dozen major markets, the idea was to use FM to feed special musical and shoppers guide programs into city buses and streetcars. It started with a bang and most of the audience research indicated bus riders liked the sweet music. But for some reason...whether it was the traffic noise or the fact that they felt like a captive audience...they didn't seem to hear the commercials. (ed. note-an electronic scheme was tried which made the commercials louder-almost by twice-than the music. A high-pitched tone actuated a volume control on the receiver to bring the commercial voice louder.)

Exit Transit Radio. WKRC-FM went back to broadcasting, and until a better claim is asserted, we believe it to be the first commercially profitable independently programmed FM in the nation. WKRC-FM was an outgrowth of WCTS Cincinnati's second FM radio station. WLWA was the first. The initials WCTS of course standing for Cincinnati Times-Star. On the air at 11 a.m., March 17, 1947 on channel 245 which is 96.9 MHz with 6000-watts with Wilford Kennedy as station manager, Helen Nugent as program director. Helen said "We will program a 12-hour schedule each day." The radio tower was installed at 1932 Highland avenue in Mt. Auburn with a total height of 500-feet. The actual tower height was 441-feet, and with the FM antenna sitting on top of that making the 500-foot height. This was announced in October 13th of 1947, and power was increased to 12,600-watts. WCTS(WKRC) began street railway bus programming on April 12th, 1948.

During these years there was an increasing number of old hands in broadcasting who met the explosive growth of television with the resigned attitude that radio was lost and gone forever. It is perhaps the most important single factor in the growth of Radio Cincinnati that Hulbert Taft, Jr., was not one of these faint hearts. When radio was at its lowest ebb in reputation, in morale, and in revenues, Hub Taft's determination made WKRC a leader. In recent years much of our Company's spectacular growth rate can be attributed to the rejuvenation of once-great radio stations which had been allowed by former owners to decline into islands of indifference afloat on the seas of red ink. Radio, today, is greater than ever. It reaches more people, furnishes more service, and earns more dollars than in the balmy days of Franklin D. Roosevelt, Amos 'N' Andy, and the Kraft Music Hall!

Incidentally...another flashback...Hollywood is a whole new wonderful heart warming world. After a lifetime of public service types in radio and TV, it's at least interesting the kind you meet in Hollywood. There's a probably true story about one major film executive concerning the provision in his will that upon his death he should be laid out in state in the main studio on the movie lot. Hundreds, perhaps thousands, of employees and celebrities turned out for this brilliant affair. As they filed past the bier, one of his famous writers was heard to remark to a pal: "It's just like Harry always said, 'Give the people what they want and they'll show up!'"

Mr. Rogers continued: "As a business judgment we see programming as our basic product. 'Fine, you might well say. 'If I were an investor, or a financial analyst, I might buy your shares. If I were an advertiser, I might buy your wares. If I were a politician, I might want access to your audiences, If I live in your cities, I might hear you and see you. But, I am a member of the Newcomen Society in North America. I ask you 'What are you doing to further the American Idea?' 'What is your stand on free enterprise, on a free society?' 'What do you do to earn your stewardship of those fabulous broadcasting licenses you have described?'"

I thought you'd never ask!

Radio and Television stations are licensed by the Federal Government under the Communications Act of 1934 in "The public interest, convenience, and necessity:" a brilliant phrase which has for thirty years eluded any attempts to define it. A certain cynicism has grown up in some quarters concerning the preoccupation of broadcasters with ratings and the advertising dollar. This is not altogether undeserved. Some of the bad actors among us have given rise to scandals and legends.

But, happily these are the exceptions rather than the rule in the meteoric history of broadcasting. The fact of the matter is that the leading practitioners of broadcasting became successful because they found that the prime ingredient for that success was a genuine service to the public. It is the ability of a radio or television station to be instantly responsive to the needs and desires of its community that gives it that ineffable personality which enables it to rise above the herd. Such has been the goal of each Taft Station beginning with WKRC, now known throughout the Company as the "Flagship" station.

An important part of Taft's response to community needs, and indeed, one of the unique attributes of TAFT operations is the broadcast editorial. We were among the first ever to explore the uncharted waters of opinions through the air. From the earliest days the editorial voice of the licensee was silent. In the heyday of the thirties, radio commentators were purveying their own opinions. First by custom, and then by government fiat, the licensee could have no opinion. In fact, it was literally true that freedom of speech was available to everyone in the land except the holder of a radio license.

After World War Two, the FCC reversed this stand, and within the confines of a series of documents collectively known as the "Fairness Doctrine" gave tacit consent to editorializing. It was President Eisenhower, in a speech to the broadcasting fraternity, who actively promoted the use of the airwaves for the opinions of Licensee's.

And Mr. Roger continued with: "Actually, the Fairness Doctrine is a reflection of what all reasonable and thoughtful broadcasters have practiced instinctively from the very beginning. Being fair is about as basic as you can get. When you demonstrate an unwillingness to expose a contrary view, you immediately reap the mistrust of your public..."

In the Twenties it was Dr. Brinkley's infamous monkey gland promotion which was a scandal. A best selling book, and then a movie about the fabulous George Washington Hill saddles broadcasters with the label of "Huckster." And the sorry mess of the rigged quiz shows left all our reputations somewhat tarnished.

And in conclusion Mr. Rogers said, "Broadcasting is the only form of communication that permits now a diverse and continuing dialogue between the people and all levels of their government in our self-governing society. To this extent, the survival and greater-growth of local broadcasting is absolutely essential to the continued existence

of a locally-oriented process of self-government. Already we have seen the erosion of the power of the states and the power of the legislative branch of the Federal Government against the overwhelming political and economic influence of the national administration, restoration of a more viable balance between the various elements of government in a free America is now that ever dependent upon a flourishing, locally oriented broadcasting system.

To the extent that Taft facilities and dedication to the public interest make it possible for us to help in the preservation and strengthening of our free institutions, we pledge our tireless and unending efforts."

Lawrence H. Rogers

I worked at the studios of WKRC and also at the transmitter on the rooftop. The studios were at the ground floor level with the doorway facing the Parkway on the North-east corner of the Hotel Alms. I was fortunate to work at radio when it truly was King. The days of the sound-effects department. We could imitate a raging forest fire simply by using cellophane from a cigarette package, and crumpling it in the palm of our hand while holding it close to a mike. The sound of thunder and lightning was obtained by a large sheet of tin which we held on one end and bounced it up and down. Squeaking doors were done by the simple expedient of drilling a hole in a flat piece of wood and inserting a broom handle and turning it until the desired sound was heard. Blowing one's breath across a mike would simulate the sound of a howling blizzard or even a crowd noise at a baseball game. Gun shots were harder to come by. Soots that a standard pistol with blank cartridges would paralyze the mike and no sound would be heard at all. Different types of wood were beat together at a certain distance from the mike for gun sounds. Small ball-bearings rolled in a tin can could be used either for a volley of shots or for raindrops depending upon the drama being enacted at the moment.

We had many different types of mikos, for different purposes. Some were for dialogue, or speech only. Some were used for choir groups and the pattern was chosen to fit the particular group arrangement that was in the studio at the moment.

At that time WKRC had the facilities of the Mutual Network. Practically all the network broadcasting in those days was only from the eastern part of the country. The area bounded by New York westward to the Mississippi and as far south as Atlanta. Rarely was anything fed further west than Denver. A stock answer by the telephone company when we experienced trouble on the line was that the trouble was "West of Denver."

Time zone differences made most of the network shows dictated a policy of only airing network shows to a very restricted part of the country at one time. Recordings, or delayed broadcasts were seldom resorted to. In Cincinnati the networks that we are most familiar with are NBC, CBS, and Mutual. ABC had not come into the picture as yet as it was an offshoot of NBC later on. In New England they used the "Yankee" network, while on the West Coast they had the "Don Lee" network. Through the 30's there was almost 800-miles of nothing between Denver and the Rocky mountains into California. I mean as far as intercontinental phone lines were concerned.

I used to listen to both ends of the Mutual line when WKRC was feeding the net. There was almost a two-second delay in hearing when you first listened to the sound going out and then listening to the sound after it had made many thousands of miles over the wires before it came back to you. It was a funny sensation to watch some one's lips move and two seconds later hear the sound!

At times I worked a trick at the transmitter on the roof, and as WKRC signed off at 1 a.m., I could listen to the dance bands as they came over the wire all night. I caught all the good dance music from across the country as the time moved westward across the country.

I spent three summers at Crosley field doing the ball game remotes as an engineer. The hospitality of Crosley field was without peer. They had a buffet style lunch room there and we helped ourselves all during the game. Dick Busbitt did most of the color work and the

line-up, weather, etc., while Waito Hoyt did the actual games. The equipment used for those remotes was heavy and required several trips walking up the rear steps clear to the press box. We always had batteries as a standby in case of electric failure. The pre-game shows like the Findlay Market group with bands etc. was fun to watch from the press box vantage point. WKRC always used a separate crowd noise mike pick up. We rigged up an old wooden mixing bowl about 15-inches in diameter and mounted a salt-shaker mike in the center of that and swung it over the sides of the box in order to mix the correct amount of crowd noise. There were two reasons for having the broadcast originate from the press box. The vision was better for the announcer for one thing, and secondly, we got away from the crowd drowning out the voice of the announcer by being so far away.

Setting up and auditioning orchestras and talent for a broadcast was a real art. It was nothing to spend three or four hours just for a half-hour show. It had to be perfect in those days. It was a cardinal sin to miss a single word, or the first note of a musical number. Everything had to be just so then. Levels on all talent were double checked in order that a constant level of sound was fed to the transmitter on the roof. I can still see "Singing Sam" standing over in the corner of the large studio "A" with one hand cupped over his ear so he could hear himself above the orchestra. That beautiful baritone voice singing with a hoosier accent was something to hear I'll tell you.

All the country music was done "live" also. The best microphone was used on the organ and it was permanently mounted in the ceiling. An RCA type 44, which was a ribbon type, or as it was known "velocity type." The motto of WKRC in those days was "Let every word be heard."

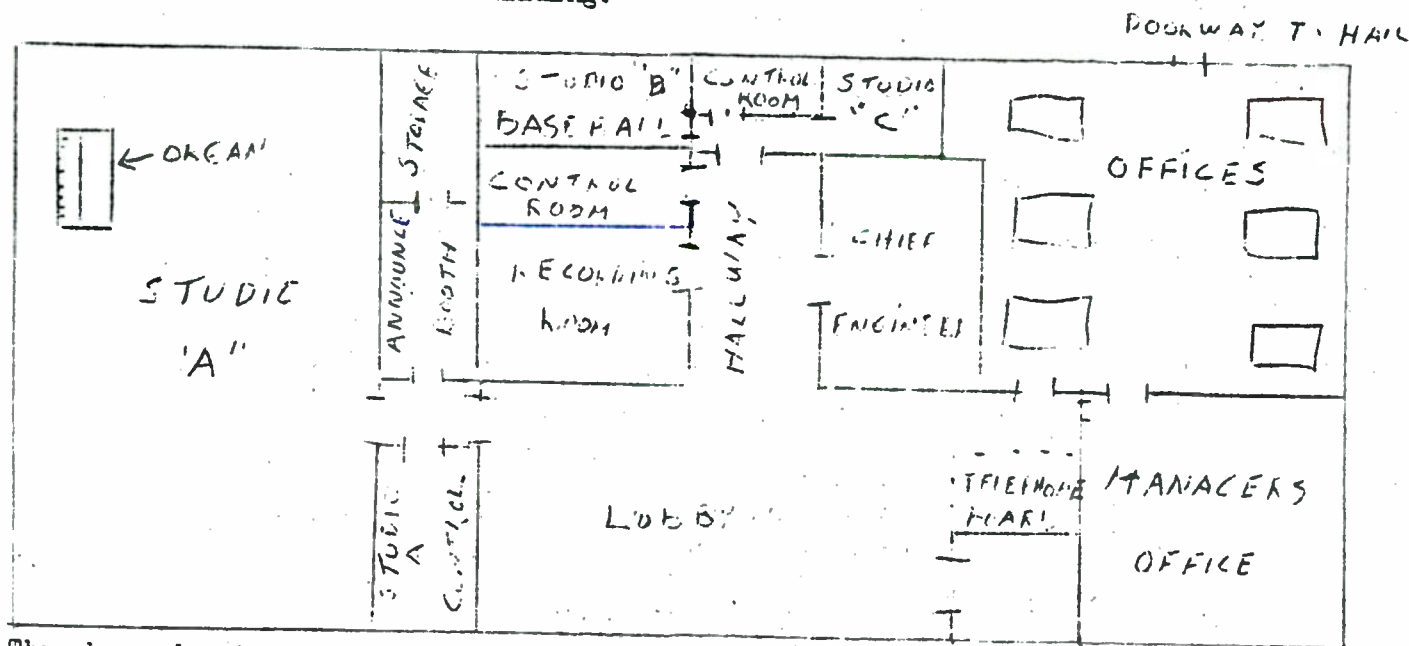
Playing phonograph records in those days was a problem because of the lack of standards in recording. For instance, most of the electrical transcriptions were 16-inch in diameter and recorded in a vertical manner. Records as we know them today are all cut in a horizontal or lateral manner. This meant we had to use a special phono pickup for the vertical cuts and another for the standard cut records. To compound that problem some of the records were cut from the outside to the inside, and others were cut from the inside to the outside! You could get mixed up awfully easy with those records. If we goofed the traffic department would have to re-schedule it for another time, or "make good" as they called it. We used a library service, well actually we had two services, one called "Thesaurus" and the other "Langworth." Another one came along called "World." We used these sometimes for whole programs, but most often as "fills" between shows. They had all excellent artist for talent.

There was a great deal of pride taken in running a good show in those days and I am glad I had a small part to play in it. We had a remote from the Cincinnati Stock Yards about 11 each weekday morning. Elmer Hinkle did the show and later on Nelson King took it over. Elmer Hinkle was a partner in an old show called "Hink'n' Dink." Fifteen years later I did remote broadcasts for WPTB in Middletown from different county fairs scattered throughout Ohio. At the stock yards we had an old crank type telephone and the studio engineer would feed me "cue" over this line so I could tell when to go over the air. We called these cue lines "order wires."

Everything was done "live" then. Judson McKim had a program called "Power for Peace." The orchestras of "Fap" Lee for the Penny Pruden show-Penny's Pantry from the studios and later it was done from the second floor of Willis Music company of 4th street. Yes, all in all, it was fun being in radio, and I wouldn't have missed it for anything.

One of the girls who worked in the traffic department of WKRC in the early 40's was Ann Rolfe. She is now Mrs. James Lang of Radio Station WNOP in Newport, Kentucky. She recalled in a conversation with me at her station some names and programs from those years. Of course there was Tom McCarthy on news along with Vorn Schuman and sometimes Stan Block. Programs included "Singing Sam-The Barbasol Man," Jimmy scribner with his Johnson Family", Ehster Fannon on piano, Barney Yelton on string bass, Del Staton a guitarist with Bobby Koes... Jimmy Elbur and his clariont...and on the hill-billy side there was Glen Hughes and his group who started in mid-afternoon and moved to an early morning show... Bake Artor sponsored by the spaghetti company..remember AP. Carter ?..

.that was Chef Boyardi who sponsored Boake Carter...Waite Hoyt on base ball...Dick sbitt doing the color and also remote football games in the fall...he was a former professional player himself...Fulton Lewis Jr....and engineers Bob Cantrel, Ray Shannon, Peipmeyer, El Bisbee, Jim Gallagher, Joe Rice...Don Hulse...Hugh LaCross...Dick ams...John Ledbetter, John Klotter, Jim Ringland, George Wilson as chief engineer. I remember the program called "Green Hornet," The "Shadow" with Lamonte Cranston... "Flowers a good neighbor" with Helen Nugent who was also a vocalist. Nelson King and the telephone program sponsored by M. Werk Soap Company...remember the metal tag on "TAG" soap? Cornell with a school quiz program, he also used to write for the comedian Joe Penner... "anna buy a duck?"...Sid wrote for many of the WKRC shows. "Pap" Lee on Organ, also as a music director...Helen Nugent had a show "The old-Fashioned Girl"...Francis Swing VanVeen continuity writer who wrote local soap operas...Bill Martin from the Schuster-Martin school of acting just up the street from WKRC. . . Dolly Nesbitt who had loads in these shows...Dottie at the switch board...Marian Grau for daily program logs...Program directors Fred Dodge and Joe Stoval...Joe came from KMOX, St. Louis...the office force on the first floor were called "The Sundusky Branch" with Millie Mueller, Dorothy Murphy, Joan as...on the lower floor were the sales offices where Joe Stoval started with Jake Latham Hulbert Hood, Mary Grothaus secretary to Ken Church the manager and Hub's office was a large one in the corner of the building."



The above drawing made by memory-30 years ago-most of the programs originated from studio "C" where two turn-tables were. The recording room had two disc recorders suitable for 16-inch transcriptions. Each studio was switched from the transmitter operator on the roof who acted as master control. He also switched for news at the Times-Star Bldg.

In later years I ran into Nelson King, who I thought was one of the truly great announcers. and him, at a small station and I asked him "Why Nelson, if I turn on this tape recorder, you please give me a rundown on early radio?" True to his profession, and without trying to think he kept up a running commentary which I now put down on paper.

I came back to Cincinnati, after I left Portsmouth, Ohio, WPAY, and went with WCPO in . Then to WGIC in Louisville. In 1941 I came to WKRC in May of that year. Those were years, because at that time WKRC had an array of talent. WKRC with the great, and one only, Ruth Lyons, and of course there was Dick Nesbitt, and a few years later Waite Hoyt. was Bill Gold who is quite a writer for the Washington-Post now, but who wrote news for Mike Hunnicutt the inexhaustible clown that he was, had a show. I had the pleasure of working for the Ruth Lyons show several times and later I had a show of my own called "Soap Calling." I recall many of the remote broadcasts. Most were from the Kentucky side of the river when we first started. Places like; Beverly Hills, Lookout House, Latin Quarter, we really had a great time.

We interrupt our history for program notes:

RANDOM PROGRAM SCHEDULES
OVER THE YEARS
WKRC

One year before WMH became WKRC, On December 18th of 1924 the schedule indicated that at 8 p.m. an organ selection would be played by Kurt Henkel. This was followed by a tenor solo by Carl Cornnelle and at 9 p.m. the orchestra of Woody Beall called "The Eastern Hills Orchestra" rendered several popular numbers. Ten years later, on Sunday, December 2, 1934, WKRC had the following shows scheduled. The letter (C) after a show indicates CBS. It was CBS who owned WKRC from 1931 through 1939.

7:00 AM.....Sunrise Worship	3:00.....Symphony Orchestra
7:45 "Did you know that?	5:00.....Open House (C)
8:00 "Negro Spirituals	5:30.....Musicale (C)
9:00 "Bible school	6:00.....Music by Gershwin
10:00"Church Of The Air	6:30.....Smilin Ed McConnell (C)
10:30"Press Radio News	6:45.....Voice Of Experience (C)
10:35"Jim Lighffield	7:00.....California Melodies (C)
10:55"Christian Science	7:30.....Chicago Knights (C)
NOONAmerican Legion	7:45.....Mrs. F.D. Roosevelt (C)
PM	8:00.....Symphony Orchestra (C)
12:30Tito Guizar (Music studio)	9:00.....Alexander Woollcott (C)
12:45Jewish Hour**	9:30.....Stoopnagle & Bud
1:00Church Of The Air	10:00.....Wayne King orchestra (C)
1:30Little Jack Little	10:30.....Dramatic Guild (C)
1:45Pat Kennedy (C)	10:55.....Press Radio News using code(C)
2:00Lazy Dan	11:00.....Johnny Getz orchestra
2:30Hawaiian Band (C)	11:30.....Leon Belasco ork (C)
	12:30.....Frank Dailey ork(C) from Club Meadowbrook.

SCHEDULE FOR WKRC-TEN YEARS LATER- 1949

FRIDAY DAYTIME

6:00 AM.....News, Matlock
6:15 "Farm Hour
6:30 "Dearborn Roundup
6:45 "Farm Hour
7:00 "News, Matlock
7:15 "Up With Upson
7:45 "News, Matlock
8:00 "CBS News
8:15 "Dick And Dave
9:00 "News, Matlock
9:15 "Dick And Dave
9:30 "News, Matlock
9:45 "Supper Club
10:15"Arthur Godfrey
11:00"News, McCarthy
11:15"Judy And Jane
11:30"Grand Slam
11:45"Rosemary
12:00PM.....News, McCarthy
12:15"Aunt Jenny
12:30 "Romance of Helen Trent
12:45"Our Gal Sunday
1:00 "News, McCarthy
1:15 "Wandy Warren
1:30 "Arthur Godfrey

2:00 PMSecond Mrs. Burton
2:15 "Perry Mason
2:30 "Nora Drake
2:45 "Makes You Tick
3:00 "David Harum
3:15 "Hilltop House
3:30 "Island Bands
3:45 "Hit Parade
4:00 "News, McCarthy
4:15 "Hit Parade
4:30 "Dr. George Crane
4:45 "Bing Crosby

THURSDAY NIGHT

6:45 PMLowell Thomas
7:00 "Spin To Win
8:00 "FBI, peace and war.
8:30 "Mr. Keen-tracer lost persons
9:00 "Escape
9:30 "Crime Photographer
10:00 "First Nighter
10:30 "Blue Baron orchestra
11:00 "News
11:15 "Korn Kobbler
11:30 "Supper Club
11:45 "Nick Stuart

Throughout the war years from 1942 thru 1945 it was Tom McCarthy who captivated virtually all the Cincinnati listeners. The coupling of the Cincinnati Times-Star with WKRC was a partnership without equal for the Cincinnati listeners. With full round-the-world coverage from Mutual and Tom McCarthy in the news room at the Newspaper building at 8th and Broadway the Cincinnati listener had local coverage of the war. There were many highlights during those four years, with bulletin after bulletin which pre-empted any show on the air at the time. The climax came on August of 1945 with the surrender of Japan on VJ day. We pick up the story with Tom's voice and others on the scene.

Voice of Sid Cornell:...Ladies and Gentlemen we are now monitoring the Columbia network at their world news service, however(pause) now to London England-here we go... striking of Big Ben in awesome tones...(note CBS switched early in 1945 to WKRC)

Bob Trout...THE JAPANESE HAVE JUST EXCEPTED OUR TERMS FULLY THAT IS THE WORD WE HAVE JUST RECEIVED FROM THE WHITE HOUSE IN WASHINGTON AND I DID'T EXPECT TO HEAR A CELEBRATION HERE (voice trails off to very low level)...sound of a teletype machine...

Tom McCarthy: You've heard it Ladies and Gentlemen and we are here in the Times-Star newsroom with a traveling microphone- the war is over-the Japanese have surrendered! The victory has been won-it is official from the Whitehouse you've just heard Bob Trout announce it - President Harry Truman has just announced the end of the war. The Japanese have excepted our conditioned reply to their surrender offer. They will lay down their arms, there it is, the news you have all been waiting for, it's all over, all over. The fighting has ended, Johnny will come marching home. We're going to be traveling alongside our news wires in a moment to tell you what is coming in from Washington, as a matter-of-fact we will go out there now. There's nothing beyond the original flash which you have already heard from Washington. That President Harry Truman has announced that the Japs have excepted our surrender terms. That's it, the big news you've all been waiting for. For some neighbors of yours and mine the war ended long ago. When the messenger arrived with a telegram saying "Killed in action or died of wounds."

Let's have a thought for tonight. Let the picture of those remain with us on this day that it may be celebrated in the spirit of the sacrifice which purchased the instant which you are now experiencing. The thing that was born on September the first 1939, in which grew to encompass the world in a maelstrom of blood and cruelty, has been driven into the blackness of its' origin, it has been conquered. The sounds of the guns have been stilled. This is August the 14th, the day to remember. The word from Washington that President Truman has announced the acceptance of the Japanese surrender terms. This is the day you wondered about on September first, 1939, when the voice of Adolph Hitler swept upon the ears of the world to announce the Nazi attack on Poland. This is the day you wondered about on December 7th, 1941, Pearl Harbor, and then you said this is it. Whether you fancied yourself an isolationist or an internationalist, you knew that was it. You wondered about your own loved ones back there December 7th, 1941, whether they would survive it. Many of the boys will come marching home and others will lie beneath the white crosses and skies in far places. Places whose names we've never heard before that Pearl Harbor day. And so, now the war is over, the victory is won. The American people have a new listing of names which have been consecrated by American blood. The blood of boys and men from Cincinnati, Covington, Newport, Lebanon, Greenville, Dayton, and Connersville Indiana and Lawrenceburg. And there's a new listing of names, a listing of names which tells of far places and calls up the vision of beach-landings, in an inferno of fire and steel. And there's that vision of white crosses tonight. Bataan and Corregidor, hunger and disease and the will to fight on ...to hold on a little longer. You can hear the whistles in downtown Cincinnati, there breaking loose because this is it, this is it friends.

But, remember Tarawa, Iwo Jima, Saipan, White crosses where once marines and doughfeet bought another advance in shifting sands with the blood of their lives. Okinawa, Iwo Jima, Tarawa and there were others. And now it is all over in the Pacific, over in Europe. It is over friends save for the white crosses and the memory of those place-names you never heard of before this war started. Beach-landings in Normandy, break-through in Brittany, airborne troops trapped in a place to be remembered. Bastonia, Salerno, Palermo, Anzio, these place-names too can be delivered into memory now. Because friends, but, keep the memory. The job has been done in the western world and on the land and seas of the orient, and let's not forget it. We are traveling alongside our news wire (sound of teletype getting louder now) now, as a matter of fact maybe if we can get to the window maybe we don't have to get there. You can hear the bells and the whistles in downtown Cincinnati. I don't know whether they come in above it, the newswire ticking. But Mr. Truman made the announcement that it is over-at a press conference. He read a statement which said, "I deem this reply a full acceptance of the Potsdam declaration which specifies unconditional surrender of Japan and in the reply there is no qualification." That's the way President Truman said it. Let me see if I can get to a window. We can hear the bells and the whistles out there, Now Cincinnati can really celebrate. It has got something to celebrate. The thing is over and Johnny will come marching home. Friends possibly Columbia Broadcasting system has something that I haven't got. Down here on my ticker, so we take you to CBS....."This is Columbia's news headquarters in New York, our last great enemy is defeated, the second world war is at an end....." And on the end of Columbia's recording made later with the words of Edward R. Murrow stated on "Hear it now" Have we come through the dawn without knowing it?

Paul Hodges, who had done "The man on the street" program for WCPO at the Union terminal was now at WKRC in 1943 with an 11 PM show. He was a marine recruiter and it was he who enlisted me into the Navy. While I was at Great Lakes I marched on the "Grinder" to the music of no less than that of Barney Yelton playing the tuba. It was he who played string bass at WKRC. Small world, to meet former friends at Great Lakes Naval training station. Durwood Kirby was there also and announced a program fed to the blue network called "Meet Your Navy." I recorded those show on a disc recorder along with another WKRC engineer El bisby. I saw Bill Johnson, of the Fibber McGee and Molly radio show. He was a sailor the same as I now. Remember his fictitious wife "Sweety Face?" The Navy radio program drew many from Hollywood to appear on it. Wallace Beery was there as well as the former child actor Jackie Cooper himself in the Navy now. I later volunteered for sea duty and it was the same Jackie Cooper who handled my papers for me. As I stood in front of him, with my heavy sea bag over my shoulder, my thoughts flashed back to the time when I was a boy and went to the Saturday afternoon movies to see this Jackie Cooper in the "Kid". There was no time to talk, others were pushing me forward. Just time for a fleeting glance, and my boyhood was gone forever.

In December of 1935 you could hear Beatrice Osgood at 6 oclock and Dick Bray at 6:15. I remembered Dick Bray from refereeing high school basketball games when I had attended Norwood High School. Then on WKRC at 6:30 PM you heard "1000-eyes, at 7 "Myrt and Marge", Singing Sam at 7:30 and Boake Cartor at 7:45PM. Francis White at 8...Pick & Pat at 8:30...Radio Theatre at 9...Wayne King, the Waltz King at 10...

As radio moves into its' second half-century we still have time for one more flashback scene before closing. This time the locale is the whole United States, 48 at the time, and the place is WKRC on your radio dial. The time is 8 PM EST the night of October 30, 1938. By any reckoning it should have been just another Halloween night. It was that, and then some. Orson Welles and a group of his Mercury Theatre actors took places before the microphones of CBS. There followed a one-hour program called "Invasion from Mars." It ended as a Halloween prank, this broadcast caused mass hysteria throughout the country. It was so real, and never had the American

public been exposed to such a show. It was soon apparent that a National panic had been caused, and the chairman of the FCC called the program "regretable." By any rights people should have been listening to another network where a new show began that night with Edgar Bergen and his "Charlie McCarthy & co.", but somehow the rating system failed because after the show was over CBS was swamped with telephone calls, some frantic, and they were at a loss to explain to listeners that it wasn't real, only a play. It was evident that people didn't listen to the opening, for the announcer said "The War of The World's" by H.G. Wells. Then a weather report was given followed by an announcer saying "From the Meridian room of the Park Plaza in New York City, we bring you the music of Ramon Raquello and his orchestra. With a touch of the spanish Ramon loads off with "La Cumparsito." The music started and almost immediately another voice said "Ladies and Gentlemen, we interrupt our program to bring you a special bulletin. At twenty minutes before eight oclock Central Time, Professor Farrell of Mt. Jennings Observatory in Chicago, reports observing several explosions of incandescent gas occuring at regular intervals on the planet Mars." Then followed more dance music, and more information as to disturbances on the planet.

Then a flash with shocking news that a giant meteor had landed near Princeton, New Jersey, killing 1500-people. Dance music again, and then the appalling bulletin that it had not been a meteor, but a huge metal cylinder containing Martians armed with death rays. No one remained calm. Even people who had listened from the start were not sure now. Panic prevailed from coast to coast. In Cincinnati Dr. Forrest Saunders, who was an intern in 1938 at General Hospital, recalls that his room-mate believed this so strongly that he packed his grip and was leaving the hospital when Dr. Saunders asked "Where are you going?" The young intern replied "I'm going out there and help those poor people." Far fetched? Not if you had heard it in 1938. The Cincinnati public library has a recording of this, and for a study of the impact of radio upon all the public, it should be listened to.

One year later, in 1939, WKRC had built a special booth, which could be knocked down for transportation, to be used as a portable studio. Most of the other stations had mobile trailer set-ups, but WKRC's was different. It was built in the shape of a table model radio complete with a glass dial pointing to 550 Kc and large enough that several people could get inside it. It was about ten-feet high, and twenty-feet long, with a tuning and volume control knobs about a foot in diameter. Where the dial glass was, on the front, you could see through it at the announcer and the engineer inside. Jimmy Ringland was the engineer who later went into the army and I think did some special work for the government. The last time I saw this mobile studio was in front of the Zoo during the food show of 1940. It was quite an eye-catcher when you first glimpsed it.

In 1938 WKRC employed 38-persons, eight are regular announcers, WKRC carried programs of the Cincinnati Symphony Orchestra and the Cincinnati Conservatory of music. Both programs were fed to the entire CBS network-sponsored, and WKRC was one of the 10 basic stations. WKRC-"First on your dial." WKRC is still doing business at the same old stand in 1971. Stan Matlock's "Magazine of the air" is still the most-listened to morning programs. We find Don Webb on news and the programming could be called middle of the road with pop and semi-classic filling the airwaves. So-Time Marches on- and only time will tell the next fifty-years.



THE TELEGRAPH AND RADIO IN CINCINNATI

For many persons who read this the word "Telegraph" will have no meaning. Its principle use in this year of 1970 is in amateur radio. It is a requisite for obtaining an amateur radio license. At one time it was the only means of communicating. Newspaper, early radio, business, stock market reports, all were transmitted via the telegraph. The older service of using telephone lines strung between cities used the same code as did the railroads. This is called "land-line Morse" and the one used on radio was called "International Morse Code." The difference was that land-line Morse used dots, dashes, and spaces, and a sounder that was an armature which made a sound-click-clack etc. The radio code used only dots and dashes. When I use the word spaces I mean that there were spaces between each element of a particular letter. I'll spell that out. The letter "C" in land line was . . . notice that the first two dots are close together and the third is wider spaced. In International Morse the letter "C" is --. or dash dot dash dot.

(following condensed from "They Built a City")

"The story of telegraphing begins with Samuel Finley Breeze Morse, 1791-1872. He was a native of Charlestown, Massachusetts. He graduated from Yale in 1810. It was his ambition to become a painter. He studied in England with Washington Allston and Benjamin West. On his return to the United States in 1815, he continued to paint. In 1826 he helped found the National Academy of Design, and served as its president for a number of years. He was a professor in the University of the City of New York for a time.

While returning from a trip to Europe in 1832, he conceived the idea of telegraphy, and worked out the first rough plans of such an instrument. In 1835 he exhibited a recording instrument. In 1837 he filed application for a patent. In the following years he requested the U.S. Congress to make him a special grant for the construction of an experimental line from Washington to Baltimore. In the meantime he visited England and was refused a patent, his scheme being held impracticable. He struggled with a committee of Congress for four years, and gave up in discouragement. In the closing minutes of the session of March 4, 1843, however, Congress placed \$30,000 at his disposal. In 1844 he completed the construction of the line. The first message over the wire was sent from the United States Supreme Court room in the Capitol at Washington to Baltimore, May 24, 1844. It was 'what hath god wrought.' During his experimenting Morse laid a submarine cable in the Bay at New York, the first in the world it is believed.

The success of Morse's invention created the greatest excitement. Telegraph lines were constructed everywhere. As he had no patents to protect him in Europe, the various governments combined to make him a present of \$50,000. The Sultan of Turkey sent him a decoration of diamonds. Gold medals were sent him by the sovereigns of Prussia and Austria. The King of Denmark sent him a Knight's Cross. Yale College made him a Doctor of Laws. He derived no wealth from this invention. The money received as presents and otherwise was spent in unsuccessful suits in regard to his patent rights. Morse also introduced the Daguerre process of photography into America. A bronze statue in Central Park, New York City, was erected in his memory by subscriptions from telegraph operators.

It is of passing interest to note that once Thomas Alva Edison worked as a telegraph operator in Cincinnati and the story goes that he was very good at it, but became bored when there were no messages to be sent or received and would study every book he could find near him on the subject of electricity.

Morse intended his code to be used in America as a process of punching holes in a paper tape which could be run through a special machine to reproduce the sounds by electrical means. He didn't realize that the full use of the code would be accomplished by manual means. That is, using a manual telegraph key. His was fully automated. The original paper tape of his message resides in the Congressional Library. It states on the bottom of the tape that in the year 1843 Samuel F.B. Morse, the inventor of the magnetic telegraph, received permission from the Baltimore & Ohio Railroad to lay, or

strin, four telegraph wires along its right-of-way, from Baltimore to Washington. Morse had asked the daughter of the Commissioner of Patents, to edit the first message, The daughter, Annie G. Ellsworth, chose from the book of Numbers 23:23 in the Bible "WHAT HATH GOD WROUGHT?"

-----CINCINNATI TELEGRAPHIC FACILITIES-----

"Its' great importance as a center for manufacturing and trade made the city of Cincinnati the first city west of Pittsburgh to be connected by telegraphic communication with Eastern communities. Only three years after Samuel F.B. Morse had publicly tested his telegraph instrument in 1844, Henry O'Reilly, one of the industries pioneers, extended his "wire" from Washington to Pittsburgh.

Believing success would come from expansion to the west, O'Reilly personally surveyed the territory and decided Cincinnati was the natural gateway to the South and West. At that time Chicago was a small village, St. Louis was on the Western frontier of American civilization, and Detroit and Cleveland were given scant attention because he considered them poor distributing cities.

After obtaining capital O'Reilly organized the Pittsburgh, Cincinnati & Louisville telegraph company. Selecting a route leading from Pittsburgh to Wheeling, West Virginia, he rushed construction work. Crossing the Ohio River at Wheeling, O'Reilly's wire followed the National Pike to Dayton, passing through Zanesville, Columbus, and Springfield. From Dayton it came into Cincinnati over the Reading Pike. Offices were on the third floor of the College Building, Walnut Street above Fourth Street. On the floor below was the Merchants exchange, one of the original O'Reilly stockholders.

On August 20, 1847, the wire between Cincinnati and Pittsburgh was opened. The following day the "Gazette" commented:

" Cincinnati and Pittsburgh shook hands yesterday by means of Mr. O'Reilly's telegraph. We had the good fortune to be present at the first flash. Accidentally and incidentally, a sort of editorial solo; and the way we were thrown into a wonderment by the performance of the little brass piece on the desk of our friend O'Reilly, with its wheels, cogs, clogs, wires, etc. We shall leave out brethren of the press who were not present to imagine. The whole affair worked beautifully, and the first word Cincinnati uttered in the ear of Pittsburgh took the Iron City quite by surprise. She recovered her equanimity in a short time and very politely sent us an interesting communication...The steamer Cambria, it will be seen...reached Boston on the afternoon of the 19th instant...breadstuffs were then dull...compliments of Cincinnati Gazette and its conductors to Henry O'Reilly and his telegraph.

Although the O'Reilly line operated irregularly because of technical deficiencies and "wire tappers" as organized groups of cutters who tried to manipulate stock market quotations were called, another wire was strung from Cincinnati to Louisville. This followed Harrison Pike to Claves; thence it passed through Lawrenceburg, Aurora, and Madison, Indiana, into the Kentucky City. Service between the Queen City and Louisville began September 24, 1847. The New Orleans & Ohio Telegraph Company, later known as the "Case Line" was strung between Cincinnati and Louisville making the second line to those cities. Messages were sent and received from the O'Reilly office. Later the firm built a wire east from the O'Reilly office at Cincinnati along the river to Wheeling. A loop crossed the stream at Maysville, Ky.

The next year a wire went from Cincinnati to Lawrenceburg, North Vernon, Seymour, and Vincennes, Indiana, to St. Louis. The O'Reilly system then built the first line to Indianapolis, looping it from Dayton through Richmond. The second line (Wade System) followed the highway to Hamilton, Ohio, and then through Connersville, Indiana. The Wade concern also pioneered construction of the first Cleveland wire, which followed

the highway through Columbus, Xenia, and Dayton. The Wade Cincinnati offices were on the south side of Third street east of Main street. Charles davenport and William Hunter were the operators.

In quick succession competitive telegraphic companies were organized. Among those opening offices here were the House system, having headquarters adjoining O'reilly's on Third Street; Atlantic & Pacific Telegraph Company, with offices on the south side of Third street, west of Walnut street, west of Walnut street; Pacific and Atlantic Telegraph Co., north side of Third street, west of Walnut street; Mutual Union Telegraph Company, south side of Fourth street, east of Vine street; United States Telegraph Company, Third Street; American Union, Fourth and Walnut streets; Baltimore & Ohio Telegraph Company, Fourth street, west of Walnut street, and Bankers and Merchants United Lines, Fourth street, between Vine and Walnut streets.

Because all the earlier systems had not been scientifically devised, messages could be sent and received only under the most favorable conditions. Breaks in transmission were common; and of course most of these were blamed on the weather, owing to transmission delays and "butchery" of messages, the early telegraph was regarded as a toy rather than as an important agent of commerce. Patronage was discouraging, stockholders learned to do without dividends, and often employees went unpaid. Offices usually closed at 8 p.m., but on occasion it was necessary to keep the wire open later. When this occurred operators received no extra pay. This condition, since it was repeated frequently as patronage increased, soon led to dissatisfaction among the operators. Labor difficulty, plus the fact that there was not sufficient business to be divided among the competing companies resulted in an organized movement among executives to form one strong national network of telegraph lines, and the era of consolidation, beginning in the 1860's was under way.

Meanwhile the O'reilly system was doing well, Henry Ware, a Cincinnati, received a contract to manufacture the Concern's equipment, and made all instruments by hand. Recalling those days, Ware once remarked, "...The only difficult part of the work was the collection of my bills."

About 1860 the Cincinnati O'reilly office hired a young man named Thomas A. Edison (1847-1931). In a short time Edison was handling a key. General Anson Stager, chief operator and manager, relates that young Edison...had the peculiar habit of becoming ill whenever business in the office was light and his services not actually required. Upon being excused by the chief operator, instead of going to bed, he went directly to the Public Library and there read every book that contained even a hint about electricity...

Apparently the young man's proclivity for study and strategic illness disturbed his fellow employees. When Edison got a job as telegrapher for the railroad, Stager did not try to persuade him to stay in the company's employ. Less than 10-years after leaving the city Edison discovered the principle for the incandescent electric light lamp.

Another Cincinnati employee of O'reilly made a find that proved highly important to the telegraphic industry. George B. Hicks, a part-time operator and maintenance man, conceived the idea for a repeater to replace the paper tape of the earlier instrument, and succeeded in building the first magnetic sounding box.

In 1861, 14 telegraph wires came into Cincinnati; seven were strung along railroad rights-of-way. The first major technical improvement was made in 1863 when a galvanized wire was constructed from Xenia to Cincinnati. This lightened the work for circuit riding. circuit riders were "trouble shooters" who traced transmission breaks caused by defective joints, escapes, and grounds. The galvanized wire, bridged and soldered at the joints, removed much of the break hazard.

When the railroads began to use the telegraph frequently in the 1880's technical development was given added impetus. For a time the fierce competition for business between the commercial and rail concerns brought with it the threat of disaster for both. Efforts pointing toward workable consolidation of parallel lines succeeded with the formation of the

Union Telegraph Company office in Cincinnati was opened in 1866. In March of that year the United States Telegraph facilities at 528 Walnut street employed about two-hundred persons, including 75 messengers, and others employed locally."

In the late 30's I did some installation work at Postal telegraph which was directly across the street from WCPO. While there I met a radio actor, Bill Martin from the Schuster-Martin school of acting which had its home in a stucco building at the corner of Kemper Lane and William E. Taft road. This was just one-block from the Hotel Alms where WKRC was located at the time. Bill taught voice technique to the students at the school. Bill and myself had both worked at the old WKRC when live shows were aired.

For more than one-hundred years the telegraph was the backbone of electrical communications. From the original two offices in 1844, the telegraph industry expanded to more than 30,000 offices in North America by the turn of the century.

In addition, private Morse Wires were established by Railroads, Newspapers, Press Associations, Brokers, Pipe lines, and many large business concerns.

"A message a minute." was required of the men who manned the "A" wires. Eighty-five messages per hour were regularly handled at speeds as high as 70 words per minute by the fastest operators. Some idea of the traffic volume can be gained by the records of the Western Union Chicago office for 1902. This office averaged more than 2,000,000 messages per month, handled by a staff of 800 telegraphers.

Somewhere in the 30's it became the practice of Cincinnati radio to broadcast the REDS out-of-town games. To get them on the air for fans to hear was a real feat. A telephone line was arranged between the out of town city back to Cincinnati. These lines were called "signal circuit" to differentiate from voice circuits. As the sponsor usually picked up the tab for these line charges and made it a part of his total bill for broadcasting the games, it can be seen that it had to be held to a minimum. These signal lines were used to operate a MORSE sounder in the studio. A morse operator who copied on a typewriter was needed also. It was my privilege for several years to be in the studio while Waite Hoyt did these games. To say the least, he was a real master at this type of thing. I also accompanied him to Crosley field, which was earlier called Redland field, as an engineer. Dick Nesbitt was there also.

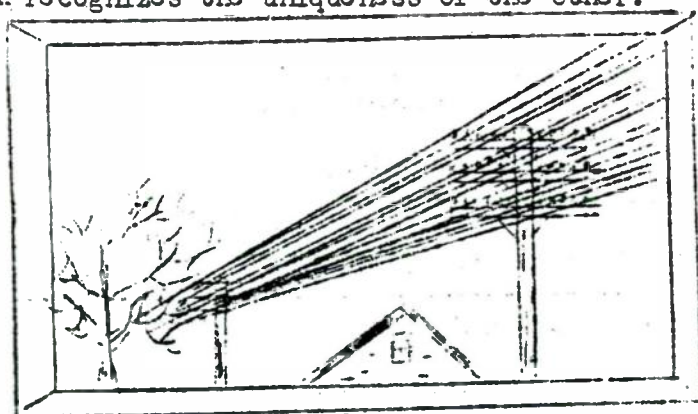
Many years have elapsed since I first became a part of this thing but I do remember how I was intrigued with trying to understand the real motive behind using morse code for the games. Why the use of the Morse sounder? Why have a morse operator? Well, as near as I can come to a correct answer would be to state that the costs of a voice circuit, if available, would be prohibitive for one thing, and another more important point could be that in those days the news wires terminated at the local newspaper office, and not now as in 1970 where it comes into a central office and the newspaper gets the entire story and radio gets what is known as a "radio split." This meant that the paper must have the game spelled out word-for-word, for their printing, and could not take the time to listen to a voice, and transcribe this to the printed page. On the other hand, radio, could not wait for this slow method of transmission so the faster method of using manually operated Morse Code was used, but using abbreviations. In this way both the radio and the newspapers had "hard copy", with one method quicker, and the other more complete, so everyone was happy. In later years, when announcers were at the game, it was common practice to send two persons to do the game. One was the regular announcer, or sportscaster, and the other did what came to be known as the color work, such as describing the weather, conditions on the field, etc. This second announcer did the commercials and this gave the sportscaster time to wet his whistle, as the saying goes. After all, throats do become dry! But I digress, we were talking about the Morse Sounder. The matter-of-factness which some announcers had was not an affectation when they were faced with this dilemma of doing a baseball game from the Morse Sounder. This dilemma was the same thing that early radio people had when they "graduated" from vaudeville to radio. They were used to seeing a live audience and when they were alone in a room with only a mike

an no audience. They were geared to the mood of the audience, and when they could not see their expression, nor hear their applause, they just did not have a sense of timing. Radio made no move to conceal the fact that this was not a live broadcast fo a baseball game. There were still many persons who could read the morse soundor as it came over the air and radio made no effort to conceal this fact. These persons kn ew what the announce was going to say before he said it. This type of announcing was a real art-form, the ability to do a game like this and make it flow.

There is no doubt that this did impose some hardship upon the sportscast as he would have to make up, in his own words, most of the game from just a sot of initials typed out by the Mrse operator. They used abbreviations for most of the play-by-play, as I said, by using letters to to denote the play. LF stood, of course, for left field, P for pitcher, and SS for short stop, etc. There was also in use a system of shorthand used by the various newspapers called "Phillips" which enabled the morse operators to transmit about 15-words per minute, and the receiving operator would expand these initials to full words. For instance, if a phrase like "The President of The United States" were to be sent by Mrse, the transmitting operator would simply send POTUS, each letter standing for one word. The WU operator added a vocabulary of his own which came into general usage between different operators across the country. Few announcers could cope with this type of broadcasting, and it became a specialized art. Imagine reading a line like this and having to unscramble it: "The PI HI INS b2," which came over the mike as "The pitch, high inside, call two!"

Then no sounds at all for several minutes from the sounder so the announcer had to keep up a barrage of words to fill in. Remember there was no crowd noises and the station would not resort to such a supterfuge.

Such was this thing called RADIO. One of the duties of the radio engineer in the early days was to copy all the news over the short-wave radio from New York using internatio Morse code, and this was handed to the announcer. This was typical operation before the teletype became common. A morse sounder was to be found also at the transmitter of many stations who used facilities of one of the networks. This enabled the transmitter engineer to copy program changes from the net, or any other information they wished to convey to the individual station regarding their programs. For a period there was some friction between the newspapers and radio stations over the matter of news, but it h s been resolved, as each recognizes the uniqueness of the other.



THE "SINGING" WIRES

Several years ago I became aware of a group of retired Morse operators in Toledo, Ohio. They publish a monthly bulletin called "Brasspounders Gossip. In one issue was a poem which I liked and I believe is apropos for this chapter of a history of radio. It was written by Sam Harris-It tells the sto far better than I can with mere dates and names.

***** SONGS THE WIRES SING *****

In the busy endless clatter where the telegraph is heard,
Where the pulse of nation's with joy or apin,
Is a never-ending story of a life-time in a word
As we listen to its mystical refrain:
"Come at once our mother dying." is the sad news it will tell,
Yet without a thrill of sadness in its sound;
"A ten-pound boy this morning and both are doing well,"
Though no joy in its metallic ring is found.

So on it goes with its burden of woes,
Likewise its tidings of cheer,
A death or a birth, sorrow or mirth,
Are stories told to us here.

The bells that peal the wedding chimes oft toll the funeral knells
Their rhythmic sounds with different meaning fraught;
"Father killed in wreck, bury wednesday afternoon;"
Then another message follows in its wake;
"Married and am leaving on a four weeks' honeymoon."
Thus two souls a very different journey take.

In the busy marts of commerce where the bulls and bears abound,
And fortunes are won and lost within an hour,
You will find this magic genii with its rapid clicking sound,
And the destiny of many in its power.
"A million bushels short on wheat, your margin has been passed."
Tells the story of a fortune swept away;
"A thousand shares long on steel, market advancing fast,"
And the dreams of wealth is encompassed in a day.

In the world of sport and pleasure, our National game baseball,
Seems to hold its votaries completely under sway,
While the lovers of the turf will do their best to call
The winners in the races day by day;
"New York won the pennant in the champions' fight for place,"
And the world applauds the victors long and loud;
"Omar won the Derby in a most exciting race,"
And there's a furore in the nervy turfite crowd.

In the cable's vast dominions that circumscribe the earth,
In a circuit that extends from pole to pole,
Forms a belt around our planet, nearly measureless in girth,
Over which the weight of mighty oceans roll.

From Alaska's frozen borders to the tropic's sun-kist shores
Where'er the foot of hardy man hath trod,
The news through the press is brought to our doors
By this especial gift to man from nature's God.

So on it will go while events ebb and flow,
Bringing us gladness and pain.
The world would stand still were it not for the skill
That creates this magnetic refrain.

THE RADIO NETWORKS

Exactly who conceived the first idea of linking together radio stations in different cities would be anyone's guess. Without the development of the vast AT & T company none of this would have been possible. Synonymous with the stringing of wires across this vast continent was the invention of the vacuum tube by Lee DeForest. It was his invention that made possible the amplification of voice and music signals so that weak signals could be reinforced and sped on their way to another city.

Within the realm of predictable human behavior-the ability to sophisticate-lies the development of network broadcasts. Radio links were tried between two stations in the beginning, but when this technique was expanded to greater distances considerable trouble was encountered. Fading, garbled transmissions, interference, man-made noise, and natural static made this system unreliable.

The use of wires was seen as the only positive method to get programs from one place to another. It is logical to ask the question at this point: "Why transmit programs from one city to another?" The answer lies in the matter of economics. For instance, if a sponsor produces a given show with a large cast, and he wants to reach as large an audience as possible, he looks beyond the coverage area of just one radio station. The individual radio station, on the other hand, cannot afford these large shows by itself, and welcomes a package show already timed, produced, for his local audience. It is a prestige item and saves considerable expense.

The use of wires in interconnecting broadcasting stations grew out of a desire on the part of program managers to introduce their program events which could not be brought to the studio. The first notable use of telephone wires over any appreciable distance was between Chicago and New York. This was the era of the Princeton-Chicago football games. The first radio net was used to cover this sports event in 1922. Almost at the same time a radio magazine said in 1923: "Coincidentally, the first use of the telegraph wire to bring a program to a broadcasting station was in the fall of 1922 when the World series, played at the Polo Grounds in New York, was broadcast from a station in Newark, New Jersey. At about the time the first experiments in radio interconnecting were undertaken between Pittsburgh and Cleveland; but being distinctly experimental in character, no definite requirement was met and no definite schedule arranged. The first systematic interconnecting of broadcasting stations by space radio was inaugurated in September of 1923. This was between Pittsburgh and Hastings, Nebraska, this interconnection being accomplished without interference to other broadcast stations or other radio services, by means of short wave transmission."

In the case of wire interconnections the earlier service was limited to supplying a program to one distant station over a limited distance, but this means of interconnection has since expanded to include stations from New York to San Francisco, and as far south as Havana, Cuba. From this meagre start it expanded to eighteen radio stations being tied together to provide the same program or public event.

The first radio interconnection of more than two broadcasting stations occurred in 1923, when the speeches at a dinner in New York City were picked up and delivered to a local New York broadcasting station, which in turn transmitted the program on its customary wavelength. Simultaneously this program was carried, or conveyed, to Schenectady over telegraph wires and broadcast on both short and long waves. The short-wave was picked up at Pittsburgh and again rebroadcast on short and long waves by a station in Hastings, Nebraska. In the final step, or leg, of its journey, it traveled to Oakland, California, after having been picked up from Hastings, Nebraska. On numerous occasions within the past year (1923) events of public interest, two of the most recent being the National Defense Test Day exercises last month and the address of the Secretary of Commerce at the opening of this conference this week, have been distributed to over a dozen broadcasting stations by means of telephone wires; the speeches and exercises were thus made available to all the public in more areas.

Vern Milton, chief engineer of WSAI in Cincinnati, recalls early days in Seattle, Washington back in 1923-24. He heard KJR and KOMO on his home-made crystal set. Coils for the set were wound on an oatmeal box, and the old standby "Galena" crystal was used for the detector. He had a pair of headphones made by the "Puget" electric company. He also recalled the REMUR receiver being used a little later, in 1930. It is interesting to note that there were virtually two countries with the boundaries of the U.S. as far as radio went, within the 48 contiguous states. One on the west coast, and one on the East coast, that is: east of the Mississippi River. Different radio manufacturer's names appeared in the two halves of the country. The scene was dominated by the eastern part. Probably due to more dense population and the attendant enthusiasm for exploiting this new radio-world. Transportation difficulties entered into the picture, compounded by lack of wire facilities clear across the country.

The time differential greatly impeded progress because you would not expect a given show, created for a seven-o'clock audience in New York, to have the same influence at 11 o'clock in San Francisco.

Lack of recording equipment prevented delayed broadcast which could have overcome this problem. (see chapter on recording) Those persons in the Western part of the U.S. were used to hearing programs oriented toward them from the Don Lee network which later combined with CBS and then to Mutual. The key stations were KHJ in Los Angeles and three others: KGB in San Diego, KFRC in San Francisco, and KDB in Santa Barbara. Don Lee network actually comprised 27 individual radio stations. There was also a transcription service network called "Keystone Broadcasting Company."

As early as June 1923, when the first multiple hookup of stations for broadcasting purposes was successfully tried by WEA, New York, WGY, Schenectady, KDKA Pittsburgh, and KYW, Chicago, a nationwide network of stations was being promoted. But it was not until the National Broadcasting Company was organized on November 1 of 1926 with key stations of WEA and WJZ that this plan was put into practice. Now the NBC operates two basic networks, RED and BLUE, linking together more than two-hundred stations in the year 1938. In Cincinnati WLW, WSAI, and WCKY were in the system. A few months after receiving an experimental license to use 500,000-watts on New Years Eve of 1934, WLW executives in that year decided to make the station one of the key stations, or outlets, for a new chain, the Mutual Broadcasting Company. Four stations, WLW in Cincinnati, WOR in Newark, New Jersey, WGN in Chicago, and WXYZ in Detroit, comprised the original group. In 1938 the Mutual system, with 107 affiliated stations, is a nationwide network, WLW and WSAI carry its programs locally.

From the book "They built a City" it has this to say: "Beginning in 1922 the success of sponsored programs selling merchandise opened a new phase of advertising. Staffs of broadcasting stations, until that time were content to fret the airwaves with phonograph music and to put on occasional "live Talent" programs, scoured their wits to give prospective sponsors programs that would help sell merchandise and services and at the same time entertain. So American radio companies began to dramatize historic and scientific happenings and serial stories. They presented news, sports, and educational events-interlarded with advertisements of the sponsors. The 'follow the leader' policies and the cautiousness of sponsors, whose slogans seem to be: "Millions for a tried program, but not one-cent for the new." This has stereotyped radio broadcasting in America. Curiously enough, this conservatism has directed major changes in radio. In 1935 few broadcasts originated in Hollywood; in a few years the movie capital broadcasts became so popular that Hollywood is today (1938) the broadcasting center for network schedules. New York is second, Chicago third, and Cincinnati, because of the super-power facilities of WLW, is fourth.

WLW, Cincinnati, "The Nation's Station," owned and operated by the Crosley Broadcasting Corporation, since 1934 has been the world's most powerful broadcasting station with 500,000-watts power day and night (50,000-watts commercial and 450,000-watts experimental). It operates on a cleared American channel of seven-hundred kilocycles. Main studios are at the Crosley plant, 1329 Arlington street; downtown studios are in the Union Central building annex, Third and Vine streets in 1938. In 1971 they are in the Crosley bldg. at ninth and Elm streets. WLW carries programs of both the RED and BLUE networks of the National Broadcasting Company, the Mutual Broadcasting Company, and those originating in Cincinnati on its "line to New York station WHN." Three other stations are members of this optional hookup-KQV, Pittsburgh, WSAI, Baltimore, and WFIL, Philadelphia. All programs broadcast over this network originate either in Cincinnati or New York. In 1938 WLW, WSAI, WBSAI, employed about 350-persons. WSAI carried the programs of the RED network, which became the American Broadcasting Company (ABC) and those of the Mutual Broadcasting System (MBS). From 1931 until 1939 WKRC was owned by CBS and of course carried their programs. WKRC then went to Mutual and this lasted until 1945. CBS moved to WCKY in 1939 and continued until 1945 when L.B. Wilson decided to not use any network shows.

WCKY in the beginning used BLUE network in 1929 and about 80% of the programs were network sponsored. By means of a change made in December 1937 Cincinnati had a split-network program: commercial sponsors may use either WLW, WSAI, or WCKY, the NBC stations. In 1970 we find WLW with NBC programs, WCLU with Mutual shows, WCKY with all CBS news and radio programs and the American Network being exploited in the FM medium with audio news instead of using wire lines for teletype machines.

-04-

A logical question should arise as to why NBC had RED and Blue divisions of its network. In my own opinion, based on what I think is common sense, would be the fact that they realized that a group of 50,000-watt stations would program in a different manner from a group of local stations. To bring this point to focus you will not hear a 50,000-watt extolling the virtues of a small corner grocery store to listeners scattered over several states. Number two can of peas 25 cents, loaf of bread 30 cents, etc. would not appeal to listeners who wouldn't even know where this store was and furthermore, cared less. Whereas a national product such as a soft drink, cigarette or baking powder would be found on the larger stations. -So in a sense NBC had two separate facilities to sell to a prospective sponsor. If it were a national product, and the sponsor was willing to pick up the tab for the rate card of a large group of strong stations to reach its market, then they bought RED. If, on the other hand a given sponsor wanted to reach only certain cities with local oriented stations then they bought BLUE time. I think it was possible to buy the whole bundle also.

In later years was to see the grouping of the New England states into a new network called "The Yankee Network." In the early 1950's we saw the formation of the first Southern radio network originating out of Texas called "Liberty Broadcasting System."

Real network broadcasting began that December 15th of 1926 when NBC was born. The new network, with WEAf in New York as its key station, combined a group of nineteen affiliated stations, using more than 3,500-miles of wire on special telephone circuits. It was over this network that the first coast-to-coast program was broadcast. In January of 1927 the Rose Bowl Football game was aired originating from California. A period of transition was ushered in with the Radio Act of 1927 to control broadcasting.

DECEMBER 15, 1926
ANNOUNCING THE

NATIONAL BROADCASTING COMPANY INC.

National radio broadcasting with better programs permanently assured by this important action of the Radio Corporation of America (RCA) in the interest of the listening public.

The Radio Corporation of America is the largest distributor of radio receiving sets in the world. It handles the entire output in this field of the Westinghouse and General Electric factories. It does not say this boastfully. It does not say it with apology. It says it for the purpose of making clear the fact that it is more largely interested, more selfishly interested, if you please, in the best possible broadcasting in the United States than anyone else.

RADIO FOR 26,000,000 AMERICAN HOMES POSSIBLE

The market for receiving sets in the future will be determined largely by the quantity and quality of the programs broadcast. We say quantity because they must be diversified enough so that some of them will appeal to all possible listeners. We say quality because each program must be the best of its kind. If that ideal were to be reached, no home in the United States could afford to be without a radio receiving set. Today the best available statistics indicate that 5,000,000 homes (1926) are so equipped, and 21,000,000 homes remain to be supplied. Radio receiving sets of the best reproductive quality should be made available for all, and we hope to make them cheap enough so that all may buy. The day has gone when the radio receiving set is a plaything, it must now be an instrument of service.

WEAF PURCHASED FOR \$1,000,000

The Radio Corporation of America, therefore, is interested, just as the public, in having the most adequate programs broadcast. It is interested, as the public, in having them comprehensive and free from discrimination. Any use of radio transmission which causes the public to feel that the quality of the programs is not the highest,

that the use of radio is not the broadest and best use in the public interest, that it is used for political advantage or selfish power, will be detrimental to the public interest in radio, and therefore to the Radio Corporation of America. To insure, therefore, the development of this great service, the Radio Corporation of America has purchased for one-million dollars station WEAJ from the American Telephone and Telegraph Company, that company having decided to retire from the broadcasting business.

NATIONAL BROADCASTING COMPANY ORGANIZED

The Radio Corporation of America has decided to incorporate that station, WEAJ, which has achieved such a deservedly high reputation for the quality and character of its programs, under the name of the National Broadcasting Co., Inc.

THE PURPOSE OF THE NEW COMPANY

The purpose of that company will be to provide the best programs available for broadcasting in the United States. The National Broadcasting Company will not only broadcast these programs through station WEAJ, but it will make them available to other broadcasting stations throughout the country so far as it may be practicable to do so, and they may desire to take them. It is hoped that arrangements may be made so that every event of national importance may be broadcast widely throughout the United States.

NO MONOPOLY OF THE AIR

The Radio Corporation of America is not in any sense seeking a monopoly of the air. That would be a liability rather than an asset. It is seeking, however, to provide machinery which will insure a national distribution of national programs, and a wider distribution of programs of the highest quality. If others will engage in this business the Radio Corporation of America will welcome their action, whether it be cooperative or competitive. If other radio manufacturing companies, competitors of the Radio Corporation of America, wish to use the facilities of the National Broadcasting Company for the purpose of making known to the public their receiving sets, they may do so on the same terms as accorded to other clients. The necessity of providing adequate broadcasting is apparent. The problem of finding the best means of doing it is yet expensive and experimental. The Radio Corporation of America is making this experiment in the interest of the art and the furtherance of the industry.

M. H. AYLESWORTH TO BE PRESIDENT

The President of the new National Broadcasting Company will be M. H. Aylesworth, for many years managing director of the National Electric Association. He will perform the executive and administrative duties of the corporation.

Mr. Aylesworth, while not hitherto identified with the radio industry or broadcasting, has had public experience as chairman of the Colorado Public Utilities Commission, and, through his work with the association which represents the electrical industry, has a broad understanding of the technical problems which measure the pace of broadcasting. One of his major responsibilities will be to see that the operations of the National Broadcasting Company reflect enlightened public opinion, which expresses itself so promptly the morning after any error of taste or judgment or departure from fair play. We have no hesitation in recommending the National Broadcasting Company to the people of the United States. It will make known its views to the officials of the company from time to time, we are confident that the new broadcasting company will be an instrument of great public service.

RADIO CORPORATION OF AMERICA

Owen D. Young, Chairman of the board-----James G. Harbord, Pres.
 (annoucement by NBC proclaimed in the newspapers of 1926)

In the early days of NBC Vaughn Do Leath was said to be the first "RADIO GIRL" on the air. It was chief Engineer O.B. Hanson that gave the first signal to put the first NBC show on the air on November 15, 1926. S.L. Rothafel, Broadway showman, became known on radio as "Roxy" and the gang became famous as the Roxy gang. From the Capitol Theatre in New York the country learned of those that Roxy made the favorites. James Melton, Wop Willy Robyn, Caroline Andres, and Mario Gambarelli, to name a few of that era. The microphone itself began to get rather fancy treatment as more and more vaudeville performers tried the new medium of radio. Dr. S. Parkes Cadman, a Brooklyn clergyman and syndicated columnist pioneered in a regular religious series over NBC in 1928. The voice of Firestone with Howard Barlow began on December 24 of 1928 and a day before that saw the inauguration of the 58-station coast-to-coast network on a permanent basis. The first trans-atlantic broadcast was in 1929.

Freeman Gosden(Amos) and Charles Correll(Andy) met in the year 1919. A vaudeville team was formed with a blackface act they called "Sam'n' Henry. From Chicago in 1926 to 1928 this show was localized to the Chicago area. In that year it was changed to the famous Amos 'n' Andy and over 5000 broadcast ensued. It was reported that the whole country ceased doing what ever they were doing at that time of day, and listened to this program. Even the President gave orders that he was not to be distracted while he too listened! History was made on February 2, 1929 when NBC mobile units brought voices from an airplane right into the nation's living rooms. Sir Harry Lauder, he of the Scotch accent, was always welcome on radio as he was remembered for many of his recordings played in the parlor before radio became king. In 1929 the "Rise of the Goldbergs" made its debut on NBC with Gertrude Berg as writer, producer, and star of the program.

General James Harbord of RCA said: "A startled world gasped with amazement when it read the fabulous adventures of Aladdin with his wonderful-working lamp. The imagination of mankind was fired when Jules Verne looked down the murky-arched vista of futurity and prophesied that men would saddle the forces of nature and drive their ships beneath the surface of the ocean and their chariots along the broad applan trails of the skies."

"But the fires kindled in the minds of men died away, and the cold, drab ashes of reaction, calumny, and vituperation were heaped on those whose only sin was a God-Given right to read the future. For decades the clammy, chill hand of tradition shackled man's progress."

"About half a century ago(1850) the chains were unloosed. Science came into its own. Epochal inventions followed one another in rapid succession until the course of the river of life has been completely altered. The startled astonishment of the first decades has become matter-of-fact expectancy. Truly, the humblest workingman of this new Western nation has luxuries and comforts of which the mightiest Emperors of Rome never dreamed. Steam trains and boats, telephone, telegraph, cable, the harnessing of electricity to the myriad mass of humanity, automobiles, airplanes-we accept them all without a thought, as part of our routine of living. Thus it is with radio, it has become part of the very warp and woof of our daily existence. In many respects radio is the most marvelous of all inventions. Through its daily intimate contact with millions of people its influence is incalculable. What is the future? What is radio going to be by 1950? To find the answer to this question I have searched my mind. First, I think I would be bold or a fool if I would hazard a guess regarding the future of any art or science. IN particular with a rapidly developing techniqun such as radio, whose basic principles yet remain to be fully understood and mastered. It is impossible to speculate with certainty on the attainments a few years hence, much less a decade or two away. Yet today, due to organized research and engineering development the future is to a

considerable degree molded along definite lines rather than left to chance discovery or accidental invention. It becomes possible to look into the future, which is largely of our own making, from the vantage point of present trends and tendencies. We may, therefore, speak of the probable achievements of 1950 with much the same security that the artillery officer, knowing how his gun is pointed, can discuss the remote and even invisible target which he is going to hit."

"The present high attainments in radio broadcasting seemingly leave little to be desired. The magnificent programs and remarkable reproduction by the latest achievements in broadcast reception already have reached such heights that further progress seems impossible. Yet it must be noted that only a very small proportion of the public actually enjoy the latest benefits of broadcasting. In many homes today (1929) the programs of 1929 are being received through the tin-horn loudspeakers of 1920. Hence, it must require a decade or two for the public at large to progress toward better radio equipment so as to make broadcasting achievements available to all."

The above is a remarkable forecast for the year 1950 as it was spoken twenty years before that. This shows the vision which men possessed in the early days of radio broadcasting.

THE STORY OF THE COLUMBIA BROADCASTING SYSTEM (The CBS story-sponsor magazine 1970)

"Not yet a half century old, the role of broadcast media in the progress of our nation and the world grows more immeasurable day by day. The broadcast industry's volume alone is beyond the ability of the individual to absorb. It has hurdled sightlessness and illiteracy. Its immediacy has condensed time and distance (inevitably, the first man in space was a 'broadcaster'). It is both catalyst and historian of our social structure. It allows us to explain ourselves to each other and works toward narrowing and, hopefully, removing the semantic differences that partition us from each other. The variety of its abilities seem truly infinite."

"The need to chronicle its record may already be beyond fulfillment. In starting with the Columbia Broadcasting System the largest broadcast operation in the world, SPONSOR, recognizes this need, because moment by moment the industry's record grows monumentally and detail is lost as people are lost. Herein are: Dreamers who build with substance of reality; the warp and woof of society and its broadcast yarn, woven inextricably; nostalgia; and a large measure of hope for the future."

HOW IT ALL STARTED WITH CBS

CBS actually antedated William S. Paley. It was born on the evening of September 18, 1927, when the "Columbia Phonograph Broadcasting System" broadcast a Metropolitan Opera Company presentation of the "King's Henchman," with Deems Taylor as commentator. About a year earlier, the National Broadcasting Company had formed the Blue and Red networks.

Columbia was an operating company, allying the United Independent Broadcasters, Inc., and the Columbia Phonograph Company. United had been established a year before by a group of visionary entrepreneurs headed by George A. Coats. An ex-salesman of paving machinery, but a promoter by choice. Coats put UIB together with the assistance and counsel of Arthur Judson, a manager of concert artists; Major J. Andrew White, already a familiar broadcasting figure in the east, and a man who believed in the future of commercial radio broadcasting Francis March along with Edward Erwin.

UIB lined up an unsteady chain of 16 stations guaranteed to buy 10-hours a week from each station at \$50 an hour, a total weekly income of \$500 for each astonished operator. The total guarantee came to \$8000 weekly. This was regarded as a fantastic sum. Fantastic or not, it was too much for UIB to meet, in the experienced opinion of Major White. The visionaries had gone overboard. Providentially, at this point (the summer of 1927) the Columbia Phonograph Company rushed new troops up to the line. Columbia had become restive over the growing popularity of radio and persistent reports that a competitor, the Victor Talking Machine Company, would soon merge with RCA.

Major White and his associates persuaded a rather willing Columbia to purchase operating rights to short-lived UIB. The new network was called the Columbia Phonograph Broadcasting System. It made its historic first broadcast. The Columbia Phonograph Company decided that, while it wanted to be 'in' radio, it did not wish to be in operations. It sold the operating company back to UIB for \$10,000 in cash and a stipulated number of hours of 'free' broadcasting. This somewhat complicated financing enabled the network to secure telephone lines, put its affairs in order and air its first program from New York to St. Louis. The first New York outlet was WOR (Newark). Other links in the first chain were KMOX, St. Louis, WNAC, Boston, WEAN, Providence, R.I., WMAK Lockport, N.Y., WFBL, Syracuse, WCAU, Philadelphia, WCAO, Baltimore, WJAS, Pittsburgh, WADC, Akron, WATU, Columbus, WKRC, Cincinnati, WGHP Detroit, WOWO Fort Wayne, WMAQ Chicago, and KOIL Council Bluffs.

Jerome H. Loucheim, Philadelphia, Pa., millionaire bridge-builder was enlisted as angel to the tune of some \$150,000. Even so, it was necessary to induce each affiliate to abandon the fantastic \$500 a week guarantee and sign more realistic agreements. The network also was given an open-end option to use whichever choice evening hours it preferred and this was the catalyst needed to put the entire tentative arrangement on a solid footing. It meant success. Network radio could be seen as something with an assured future. Columbia dropped the word 'phonograph', became known as The Columbia Broadcasting System.

All this was prelude to the arrival of young William Paley on the scene. One of the first Columbia network achievements had been a \$6,500-a-week contract with the Congress Cigar Company. It aired the "La Palina" Smoker and within a half-year after its inception Congress Cigar Company sales jumped from a declining 400,000 a day to more than a million. Young William, advertising manager of Congress and son of its founder, president and chief stockholder, Samuel Paley, was especially impressed. For some time, he had been nurturing a hunch that radio was the wave of the future. Here, he thought, was proof positive.

A fortuitous all-in-the-family circumstance gave fate a nudge. Dr. Leon Levy, owner of WCAU in Philadelphia, not only another radio adherent but a brother-in-law, introduced William to Mr. Lochheim, who indicated his Columbia interest was for sale at the right price. William Paley, bought in, with a reputed original stake of \$450,000.

On September 28, 1928, when he was 27 years old and just about a year after Columbia sent out its first network offering, William Paley was elected president of UIB. He now had financial control also. Within several months, he combined United and Columbia into one corporation, under the operating company name of Columbia Broadcasting System.

On January 3, 1929, he became president. The Paley touch-uncanny judgment, bull luck or, perhaps, judgment with luck-began to mold a legend immediately. There was, first, the deal for space at 485 Madison Avenue, in Manhattan. The building was already half built when Mr. Paley said he was ready to take the top 10 floors. The builders were willing but pointed out that accommodating construction to the two-story studios desired by CBS would require a major change in building plans, one that would not be undertaken unless William Paley would sign a \$1,500,000 lease. He signed, long term. Through the years he was to enjoy a decided rental-cost advantage over competitors through having been "forced" into the agreement.

Then, still in 1929, there was the famous Paramount deal. Adolph Zukor of Paramount Publix Corporation, was one of those who believed in, and was understandably alarmed by, the probable future of radio. He wished to 'cover his bets' and offered to buy a half-interest in CBS.

William Paley exchanged 50 percent of CBS stock, held by him and his friends, for \$5,000,000 (\$85 a share) by March 1, 1932, providing that CBS earned \$2,000,000 within two years of the stock trade. This seemed impossible. By March of 1932, however, Paramount was obligated to repurchase its stock at the \$85 price, CBS had earned the \$2,000,000 with \$1,000,000 to spare.

There were difficulties. Most of the large, prestigious stations were betrothed to NBC. The inner Paley group began building staff, studying population projections, signing up stations where they would mean the most in the future. CBS had a chain of 47 stations at the end of 1928, 60 stations in 1929, 76 stations in 1931, 91 stations in 1933, and by 1935 the network had established 97 outlets and was claiming it was the world's largest.

Let's go back to the year 1924 to finish this story of CBS. It really all started in a cigar box and it was touch and go for a few days when I.D. Levy said "Let's give it another ten days," hoping that something would happen to reverse the downward trend in that year.

The story goes like this: "In 1924, Philadelphia attorney I.D. Levy and his law partner Daniel Murphy bought radio station WCAU in the quaker city for \$25,000. A station staffer, Stanley Bronzia, sold a quarter hour program sponsorship to the Congress Cigar Company of Philadelphia. Advertising manager of the company was William S. Paley. The program: Harry Link (composer of I've got a feeling I'm falling) billed as the "La Palina" boy with piano music and songs. Congress Cigar also sponsored an early soap opera style program "Rollo and Dad" on the same station. I.D. "Ike" Levy had, somewhat earlier, brought his brother Leon - a dentist with a highly successful practice - into the WCAU ownership. When Dr. Levy had finally agreed to give broadcast management a three months trial, as I.D. recalls it: "I told him he had filled his last tooth," and this was a prophetic announcement. Daniel Murphy, shortly thereafter, decided to divest himself of his interest in the station, and the partners prevailed on the Paleys - Samuel, founder of Congress Cigar Company; his brother, Jay; and his son William - to invest in the ownership of the station. The shares were arranged to give each of the Levys a third. The remaining third went to the Paleys. Dr. Leon Levy married Blanche Paley, sister of William S. Paley.

There was no Federal Communications Commission system in those days and Broadcasting matters were handled by the Department of Commerce. After eyeing the establishment of RCA's Blue and Red networks, I.D. Levy met with Herbert Hoover, then Secretary of Commerce, to explore the setting up of another network. The man who was shortly to become President arranged a meeting with the then president of AT & T so that Levy could discuss line installations, and, at the same time, disclosed that another group was seeking the same goal.

The teaming of Coates, Judson, White and others is covered elsewhere in history. It was after their verbal agreement to merge their interests with the Levys' that Dr. Leon took to the road and sold 16 stations to sign on as affiliates of the United Independent Broadcasters network which was born on January 27, 1927. As I.D. remembers it, the two brothers soon found that if they were to remain in the picture it would be necessary to buy out UIB. They did.

With the aid of a millionaire sportsman, bridge and subway builder, Jerome H. Louchheim, who came in for 60 percent of the investment, UIB was bought and bankrolled. The cost was \$10,000. Then the network promptly began to lose money at the rate of about \$20,000 per week. As I.D. Levy told it to SPONSOR MAGAZINE, "he and Louchheim were promenading on the boardwalk in Atlantic City when the latter asked: "Ike, how long do you

think we ought to keep it (the network) going?" Then Ike said: "Let's give it another ten days," in the hope that something would happen to reverse the trend that promised to cost the partnership somewhere in the neighborhood of \$1,000,000.

In Jack Warner's book, "I.D. reminisces," he says that Warner Brothers advertised Vitaphone on radio. But what he probably doesn't know to this day is that if he had come to the network with that contract three days later there would have been a FOR SALE sign on the door."

Major White's sale to Warner Bros. would mean \$750,000 to the network. But Jerry Louchheim wanted out, I.D. Levy recalls, and it was then that the young man with the dream, William S. Paley, bought interest (for \$450,000) to gain control. The Levys absorbed the rest. Thus ends chapter one of the tale that began, in a manner of speaking, in a cigar box.

(all information supplied by CBS through Sponsor Magazine)

RADIO AND THE WAR YEARS

Volumes could easily be written on the place that radio established for itself during the war years 1941. through 1945. Radio came of age and aural reporting came in into its own. The printed page had its place still, but, alongside that place came a new medium. Radio informed a large audience through the 30's and Franklin D. Roosevelt understood the value of it as no other did at that time. He used it to its fullest extent. Never in all history did a president reach such a degree of rapport with the citizens as he. His "Fireside Chats" gave a picture of the state of the Union so quickly, accurately, and so direct, that you knew that the government and yourself were an entity. The informality of these programs lent an intimacy so that you felt he was talking directly to you. The broadcasts were heard in all 48 states. Voice inflection gave color to the words and had a soothing effect on all. It is strange that in this year of 1970, with communications beyond comprehension, in all dimensions of sound, visual, and printed word, that we do indeed seem to live in a world of babble. Never has a world been so disfranchised and separated by a language barrier as now.

In the 30's was established the era of news analyst such as that of H.V. Kaltenborn and others who specialized in commentary. His actual pay was meagre from the network, and he had no sponsors. The network knew that his value was not measurable by these yards yardsticks. Persons of his caliber found other means to augment their income by giving talks, and indeed, the demands were heavy for these. It was the exposure on radio that created this appeal for personal appearances. The voice of Edwin C. Hill added weight to the value of radio and his prophetic talk in 1935 giving rise to the threat of Japan will not be forgot. Newspapermen, whose stock in trade was the written word were suddenly called upon to do voice work, notably among these was William L. Shirer. He felt that his voice was not adaptable to radio, and his words would lose some of their value using this medium. Such was not the case at all with his on-the-spot reporting from Munich and his meeting with Adolph Hitler on September 3rd of 1938.

The record album "I can hear it now" with the voice of Edward R. Murrow produced by Columbia records best exemplifies the state of the audio reporting. This record spans the years 1932 to 1945, 13-years of the most important history of the world.

It begins in a light vein with Will Rogers talking about America and the depression "No other people in history ever went to the poor house driving a Cadillac." Franklin Delano Roosevelt's "Nothing to fear but fear itself." Senator Huey Long and his "Share the wealth plan," The Duke of Windsor abdicates December 11, 1936. Fiorello LaGuardia wages war against the "Ward Healers." Alfred Landon campaigns for the presidency in 1936. In that same year on June 27, Franklin Roosevelt's "This generation has a rendezvous with destiny" speech. The voice of John L. Lewis castigates those who have deserted labor on Labor Day of 1937. The Hindenburg disaster at Lakehurst, New Jersey in May 6th 1937 reported by Herbert Morrison of WLS, Chicago, at the scene. Prime minister Neville Chamberlain returns from Munich and tells of his meeting with Hitler, September 27, 1938, with William L. Shirer. The Joe Louis, Max Schmelling fight from Yankee stadium June 22nd, 1938 by Clem McCarthy of NBC describing the knockout.

Iron-man Lou Gehrig steps down after twenty-one hundred and thirty games of baseball. It is July 4th of 1939 and then the three views of U.S. Neutrality by Charles A. Lindbergh, Alfred E. Smith, and Hugh Johnson. The actual sounds of the Sorm-troopers with their "Seig-Heils etc, in the spring of 1940. The voice of Benito Mussolini with his declaration of war on June 10th, 1940. Over a full network of stations came the voice of Premier Paul Reynaud pleading for U.S. aid as Nazis overrun France on June 10th, 1940. From the German short-wave radio came the surrender of France on June 10th also. From your radio came the voice of Winston Churchill with excerpts from his earlier speeches on May and June of 1940.

The child voices of Princess Margaret and Princess Elizabeth as they spoke to evacuated English children on August 17th, 1940. Joseph. W. Martin notifies Wendell Willkie of the Republican nomination and Wendell Willkie's acceptance speech at Elwood on the same day. Remembering that Wendell's initials were the same as that of WLW! Winston Churchill reads "Ship Of State" message delivered to him by Roosevelt. The "Arsenal of Democracy" speech by Roosevelt on March 15th, 1941. The broadcast of the New York Philharmonic which was interrupted for the Pearl Harbor announcement by John Daley on December 7th, 1941. Sam Rayburn's voice as he introduced President Roosevelt on December 8th and the voice of Roosevelt asking Congress to declare a state of war!

Then the voice of George Hicks over Normandy on "D" day, sounds of battle in every American home for the first time in history. This was on June 6th, 1944, from the flagship Ancon through the American Broadcasting Company. September 23rd, 1944, President Roosevelt makes his fourth race for the presidency. President Roosevelt addresses joint session of Congress after his return from Yalta, March 1, 1945. The announcement of President Roosevelt's funeral procession in Washington, April 14th, 1945, spoken by Arthur Godfrey. The voice of Harry S. Truman as he makes his first appearance as president before Congress and was introduced by Speaker Sam Rayburn on April 16th of 1945. Secretary of State Edward Stettinius opens San Francisco Conference of the United Nations on April 25th of 1945. Then the epoch making of history with the Chaplain of the U.S. Army Air Forces, William Downey, as he voices a prayer on the Island of Tinian just before the take-off of the "ENOLA GAY" which carried first Atomic Bomb used in warfare. This on August 6th, 1945..."We pray that the end of the war may come soon, and that once more we may know peace on earth. May the men who fly this night be kept safe in thy care and be returned safely to us. In the Name of "Jesus Christ", Amen." The voice you have just listened to came from the world's largest airfield. From the Mariannes Islands and he stood among the target charts, escape pits, and stale coffee. He said this prayer for the Enola Gay and for civilization.

In the summation by Edward R. Murrow he said:" At the first historic instant when the first Atomic Bomb seemed to charge out of the bowels of the earth, a professor remarked 'I am sure that on dooms-day, in the last milli-second, the last man on earth will see what we have just seen.' In direct contrast, William Lawrence of the New York Times felt as if he were at the dawn of creation, and the LORD said;'LET THERE BE LIGHT,'...if the universe is as many years old as we think it is, our crowded little era of thirteen years will seem as but an instant of yesterday when it is past. 1933's unemployment, September at Munich, June 10th in Italy, December 7th at Pearl Harbor, 9:15 over Hiroshima, were all part of the identical moment. The one question remaining then : 'Was it 2359 o'clock, or 0001? Was there still to be another cycle of affliction, appeasement, and annihilation? Or had we walked through midnight, towards the dawn, without knowing it?"

During those war years, 1941-45, America's radio went to war in earnest. Appeals for blood donors, gas rationing, car-pools, war bonds, save fats, etc., were aired. Local news, and most music shows, took a back seat for news of the world. In every American home the radio was King. Fred Friendly wrote on the jacket of the Columbia record "The spoken word of what are perhaps the most fateful and exciting thirteen years in all the recorded story of civilization. That history is told here on record by the voices and in the words of the men who made that era memorable. Because that era is certain to exert tremendous influence for years to come we feel that this record of it will be as absorbing to our children and grandchildren as it is to us who lived through it."

"The events of this period from 1933 to 1945 will probably be better remembered by ear than by any other dimension. There were more ear-witnesses to Dwight D. Eisenhower on D-day than there were witnesses at Gettysburg, Waterloo, Thermopylae, Carthage, The battle of Jericho, and all the other battles of history combined. The thirteen years from the beginning of 1933 to the end of 1945 was an era for ear alone. The first and perhaps the last. Future great happenings will be televised and remembered visually as well as in the mind's-eye."

Radio, in short, played several important roles during those years. Bringing the news right into our homes was one part, or phase of it. Not only the news from far-flung places, but right here at home making us all feel as one nation. And, of course, the entertainment aspect was still there as a diversion, to keep our minds from dwelling too much on the war. A third item of interest, caused by the bombing of Pearl Harbor, was the awareness of how vulnerable we really were. No longer could we assume that the Atlantic on one side and the Pacific on the other made us an island! We could be attacked, and we were. The U.S. Navy had experimented with RADAR some months before Pearl Harbor, but the attitude here was "who needs it?" England, on the other hand, because she was surrounded by water had a definite need. It was English equipment that I first worked on early in 1942. During the war the use of our standard broadcast band to give air-raid warnings was begun. Over WLW you would hear the voice of Howard Chamberlain saying "P R L I C A N" followed by Morse code spelling out the same word. These were called "authenticator" words. For instance, Pelican meant that all was well. Another word would have warned of an air attack. At the end of the war years in 1945 emerged the system of CONELRAD. The letters standing for Control Of Electromagnetic Radiations. A system was devised whereby several stations would be tied together by a telephone line which not only carried the voice announcements, but a low frequency tone which would turn one transmitter on at a time. In this manner an enemy could not get a fix on the city itself because the transmitters were scattered from Mason, Ohio, to Covington, Kentucky. In other words, a few words would come from one transmitter and it would be keyed off and immediately another transmitter in another location would carry the words to follow. Then the next words from another transmitter in a new location etc. This system was discontinued in 1948.

The name CONELRAD was retained but a different system was devised. The Civil Defense people worked out a system whereby there would be so many "Key" stations scattered across the country and the other stations would be required to monitor their key station. In the Cincinnati area the key stations are WLW and WCKY. All the rest must monitor one of those. Each week there is an unscheduled test transmitted by the key stations. The others are required to maintain a continuous watch over the receivers installed at their transmitters. The receivers are muted which means that there is no sound coming from the speakers until the key station kills their carrier for 5-seconds and has a 20-second tone of 1000 cycles. This operates a special circuit in the monitor receivers to activate them to normal audio output. When the key station transmits these activating signals and the broadcasts the message the stations monitoring enter this exact time in their logs for that day. The receivers are designed in such a way that they are termed "fail-safe." This means that if something goes wrong with the receiver it will sound an alarm so the operator will be alerted. The voice announcement at the key station usually says "This is a test." This is followed by instructions for the listening public. Each of the stations is also required to transmit a once-a-week test of their own conelrad. The transmitters is turned off for 5-seconds-on for 5, and off again for 5-seconds, followed by 20-seconds of 1000 cycle tone and a voice announcement.

There is also a backup system installed at the studios of most stations who have news wires. UPI and AP transmit over teletype a message each week to the effect that "this is a test." The regular time is 9:30 a.m. each Saturday. The announcer is required to enter this in his log. Thus the effect of Pearl Harbor is still felt in the radio broadcasting industry. The Columbia network has another system called "Not alert" which tells the announcer on duty exactly what to do. It is an automatic electronic system, with a dial of numbers actuated by a special tone that light up the appropriate

numbers and all the local disc jockey has to do is look at the written list to see what his instructions are. This system is not required, of course, by the government as only CBS stations would have this. Bulletins, flashes, etc. can be given quickly.

FALSE ATTACK ALERT SENDS BLANKET OF CHILL OVER U.S.

So said the headlines on Sunday, February 21, 1971. The story behind this prize, boo-boo is interesting, and will prove that the best laid plans go awry. The Emergency Action Notification (EAN) system has two phases to its warning method. The prime one is the over-the-air warning. At each broadcast transmitter in the U.S. there is a receiver tuned to the "KEY" station for that area. In Cincinnati you are required to monitor either WLW or WCKY. They in turn monitor the master station situated in a central position in the U.S. An unscheduled alert is broadcast by these key stations each week, and the engineer at the transmitter is required to log this on his operating log. For every minute of each day the operator is tied to the transmitter building for fear he might miss one of the test. The second system is one where each studio, which is rarely near the transmitter, has a teletype machine which prints out the code words. The regular test are on Saturday mornings at 9:30. Most news teletype machines are in a room removed from the studio as the machines are noisy. With one man on duty at a given studio he only has time to check the machine about every hour or so. When he gets a real message all he can do is announce it and phone the transmitter operator. This is where the weakness lies in the system. After all, it is the transmitter itself the FCC wants off the air, not the studio. It is believed the Radio frequency energy emitted by each radio station can be used to home-in by an airplane if there were to be a bombing raid. This false attack warning which occurred came in at the time when a regular test message was due and even though it did have a bona fide authenticator, most stations did not believe it was true.

The program director of WWCN, Brazil, Indiana, was alone when the alert came in. The first thing that came to his mind was "My God, it's Pearl Harbor all over again." Here is the official message as sent February 20, 1971.

MESSAGE AUTHENTICATOR: HATEFULNESS/HATEFULNESS
THIS IS AN EMERGENCY ACTION NOTIFICATION (EAN) DIRECTED BY THE
PRESIDENT. NORMAL BROADCASTING WILL CEASE IMMEDIATELY. ALL
STATIONS WILL BROADCAST EAN MESSAGE ONE PRECEDED BY THE
ATTENTION SIGNAL PER FCC RULES. ONLY STATIONS HOLDING
ND3 MAY STAY ON AIR IN ACCORD WITH THEIR STATE EBS PLAN.
BROADCAST MESSAGE EAN MESSAGE ONE.

MESSAGE AUTHENTICATOR: HATEFULNESS/HATEFULNESS
20 feb 9:33 A.M.

At 10:13 A.M. this cancellation message was sent by Civil Defense command at Cheyenne Mountain, Colorado.

MESSAGE AUTHENTICATOR: IMPISH/IMPISH
CANCEL MESSAGE SENT AT 9:33 EST REPEAT CANCEL MESSAGE SENT AT
9:33 EST

MESSAGE AUTHENTICATOR: IMPISH/IMPISH 20 feb 10:13 EST

The teletype operator W.S. Borkhardt, a 15-year veteran at the National Warning System, commented afterward, "I can't imagine how the hell I did it." There are three tapes hanging above the teletype machine. One is the regular test tape. The other two are prepunched tapes of emergency warnings that have never been used before. The hooks themselves are labeled and the tapes contain a visible translation of the message. Smoyer, chief of the National Warning Center here since 1966, said there was no procedure established for handling a situation in which an erroneous message is transmitted. "We just didn't see that an erroneous message could be transmitted," he said, "It damn sure won't happen again. I've got to have time to sit up here and figure out how to make this thing 'fail-safe.' There are no stops necessary after the

cancellation notice except to answer questions and make sure it doesn't happen again."

The Cincinnati Enquirer had this to say: "For some listeners, it apparently was reminiscent of the famous 1938 'War of the Worlds' broadcast on the night before Halloween by Orson Wells and his Mercury Theatre players, but most people seemed to react far more calmly to the emergency alert this Saturday. Despite the advisory information issued by the news services, some stations remained off the air until the Civil Defense agency put out an official notice of cancellation. That came 44-minutes after the initial alert."

By checking the code word on the message against that on the list for Saturday, February 20, broadcasters were able to verify the authenticity of the message. "I thought I was gonna have a heart attack trying to open that damned envelope," said the news director of WEVA in Emporia, Va.

On the Cincinnati scene all the stations went through a nervous few minutes that Saturday morning after receiving a false alert on their newswires. Reaction was mixed as to the exact procedure to follow. WLYK in Milford was the only station to go off the air as ordered. WEBN decided to stay on as did WNOP, WSAI, and WKRC. WLW and WCKY were not required to go off the air. At WMOH in Hamilton, an announcer said "It scared hell out of us, but we stayed on. We figured it was a mistake because it came at the same time the usual test come on." The Enquirer went on to say: "WMWM in Wilmington called Clinton County Air Force Base after receiving the message and learned it was false. The alert caused no alarm at all at WFFB in Middletown, because no one noticed it!" We close this chapter on these words

ETERNAL VIGILANCE IS THE PRICE OF LIBERTY!

RADIO PROGRAMMING

In the early stages of radio programming it was relatively simple to put on shows that people would listen to. The novelty and newness of this form of entertainment made programming not so demanding.

In 1919, when WMH signed on, people had limited public entertainment facilities. The silent movie had not made its appearance except in the nickelodeon method. There were phonograph records, player pianos, organs, band concerts in the park, choral groups at churches, live drama but limited in depth with plots like "Uncle Tom's Cabin", Perils of Pauline etc. What few orchestra there were had not yet even learned ragtime and were small groups. The German oom paw paw band could be found and that was about it.

The radio station, what few there were operated on a piecemeal basis. All music was live and banjo players and others could be found who were more than willing to have a fling at this thing called radio. The piano player probably had more time of the air than any other single instrument. The "piano interlude" became standard operating procedure.

Until 1924 or 25 the three stations on the air in Cincinnati had to share time on the same frequency which posed a problem. The listener had only a pair of headphones and a simple one tube receiver or crystal detector so fidelity was unheard of. The miracle of it to hear music and voices snatched from the air by a piece of wire, a few turns of wire wrapped an oatmeal box. People were not critical, and in fact, welcomed this new medium. A radio station could sign-on any time in the evening it wished, or was able to, and no gripes from anyone. But as time wore on it became obvious that a more regular schedule had to be set up to maintain listener interests. By the early 30's radio had come of age. The clock then became the symbol and the guiding light (excuse the pun) of radio. With government regulations, and station identifications at regular intervals, it posed a restriction on the length of a given program. If a musical program was aired it was found that the timing of the particular show was not so severe as you could simply fade out of it and not lose the sense of that show.

A bit of information that came to light in later years, in 1971 in fact, had to do with a soprano singer over WLW. Listening to the radio one night in 1971 to Fred Bennignus who had a "I remember Radio" series going on the educational station WGUC. The person involved was Charlotte Shockley. In 1970 we find Charlotte as the editor of the Norwood Enterprise and several other weekly newspapers. Her main delight, or fun thing, is in writing about music in Cincinnati and elsewhere. She had sung over the mikes of WLW in the early days and for several other Cincinnati stations. She recalled listening to the "Old Stager" over WLW and to the Palmolive Hour featuring Olive Palmer and Paul Oliver. Even remembers "Salt & Peanuts" and "Hink 'N' Dink" and the minstrel shows. Remembering Fred Harper who went to station KDKA in Pittsburgh, and who started over WLW in the early years as Fred Schackmaster. In later years appeared on KYW in Philadelphia.

Her favorite singer on radio was Eileen Farrell who did every type of music possible. From musical comedy to opera. Liking Charlie McCarthy and Fred Allan too. Her own career came about when she was studying voice at the Cincinnati Conservatory of Music in the days of Grace Clauve Raines. She sang first on the famous program "Hymns of all Churches," and from there she went on to "Smoke Dreams" in a girls trio. This show was about a dreamer and his dog which opened with the dog's "Arf Arf" and the dreamer would say "I'm sitting here dreaming..." this sponsored by a pipe tobacco company. This occurred in the Arlington Street studios. She recalled the personalities of Stan Messer and Bob Middleton who had previously done Boston Blackie. Bob did a little singing but is probably better known for his reminiscence with his dog as an actor. It was Franklin Benz who was in the men's quartet and Charlotte had a singing engagement one night in Danville, Kentucky, and was late in getting back to the studio of WLW. So the trio became a duet! She said "in those days everything was done live and if you didn't show up that was the end." Somehow the trio did make out minus one musical part.

She had done shows over WSAI with John Chester Smith when he was there and on the "Christians Hour" over WKRC. Ernie Dalt was there too as was Marion Spellman who was just beginning at that time. Most of Charlotte's work was over WLW however. Such shows as "We Must Be Vigilant" during WWII. This was on a Sunday morning and if you were listening you would also have heard Fred Bennignus with a small acting part. There was a girls duet composed of Shirley Schulte and Charlotte Shockley-trying saying that sentence for practice!

It was Bradley Kincaid who wandered in from Kentucky one day in 1929 who captivated WLW's audience with his mountain ballads. He once received over 50,000 letters in five weeks. He stayed on WLW through the early 30's and remembered Sid Ten Eyck and Bob Burdette. He made regular pilgrimages back to his native state to listen to mountain and folk music. Most of this music had never been written down. Some were very old and people would make up their own lyrics each year. Songs of harvest time, the seasons, and sometimes even about hard-times. It is an interesting observation that a city as scientifically oriented as Cincinnati can find solace and comfort in folk music. It seems to prove that no matter how refined we become we all have roots in the soil. In fact, I can safely say, that folk music is grass roots music to the vast majority of Americans, no matter from what walk of life. ~~It has been on~~

In later years we find many talented persons on Cincinnati Radio mikes. Recalling Al Morgan who played piano in several night spots around town and I'll never forget the afternoon he wandered in to the studios of WKRC and began playing and singing. His "Born to Lose," and "Jealous Heart" will never stop being played. He was a real showman and most of the radio listeners will never know the antics he would go through in playing the piano. The only way I can describe his hand motion would be to say that each time he hit the keys it appeared as if his hands were going from the floor clear to the ceiling! He is the only piano player I've ever seen who played a waltz with his hands going at marching speed!

A schedule as it appeared in 1924 we find those listed below. A strange word will be found and that is "Wavelength." The word "frequency" had not yet entered our vocabulary. The radio dial, and I use that term loosely, was most often just a knob with no marking at all. In the chapter titled "Receivers" is a more complete description of the mechanics of a receiver. If you were using a crystal set with a knob that scooted across the coil wires you just judged where a given station should come in. The early tube model receivers used a round knob about three-inches in diameter with 0 to 100 degrees on a graduated dial. Later, in about 1928, dials were marked in wavelengths. notice the short operating times the stations were on.

1924 RADIO PROGRAMS

wsai-CINCINNATI 309 meters

8 PM...University of Cincinnati-Kentucky Wesleyan football game
direct wire from James Gamble Nippert Stadium.

Midnight...popular program.

WLW-Cincinnati-423 meters

8 PM...Banquet; Gibson Hotel, Speaker Elmer Schubert with
music by Robert Visconti's orchestra. Address by Mr. Schnell of ARRL

WME-Cincinnati-309 meters (same as WSAI)

8 PM Mrs. Leonora Pilgram Schwab and the Pilgrams; Ellen Pilgram,
accompanist and pianist; Lionora Pilgram Schwab soprano and manager;
Norman Pilgram, trombone and Garth Pilgram cornetist.

8:30 PM...The Schubert mixed quartet; Carolyn Gruenbergor
soprano; Mary Von Hoene, contralto; James SeEVERS, tenor, George
Egbers, barytone.

9 PM...The Auburns

KDKA -Pittsburgh-326 meters

5:30 PM..Dinner Concert

8:00 PM Band, contralto, tenor.

WEAS-Louisville-400 meters

5 PM....orchestra

9:30 PM quartet

SUNDAY SCHEDULE IN SEPTEMBER OF 1924

WSAI-Cincinnati 309 meters

3 PM...Sermonet

3:10 PM sacred chimes concert.

WLW-Cincinnati 423 meters

9:30 AM...church school service, conducted by the editorial staff of the
Methodist Book Concern; piano solo, "Variations on an
Italian Theme"(beethoven), Rev. Loigh Mudge; prayer, Mr. E.B..
Chappel Jr., hymn, "Hushed was the evening hymn." devotional read
from John 1,3, 17. Mr. E.B. Chappel Jr. special feature, Mr. E.B. Chappel
solo "Rock of Ages."

11AM...services of the Church of the Covenant; Dr. Frank Stevenson, Minister
(went off the air)

7:45 PM...services of the first Presbyterian church of Walnut Hills;
Dr. Frederick McMillan, minister.

8:45 PM Concert by the Western & Southern orchestra, directed by
William Kopp.-Overture "If I were a King"(adam)
allegretto Scherezando
Tales from the Vienna Woods
Zither obligato

selections from "Tales of Hoffman.:"

Programming? No, certainly not in the sense in which we know it in 1970. People would try all sorts of stunts to improve their sets. Have you tried silicaon? Seems to be more sensitive than galena. Try no. 20 wire wound on an oatmeal box and you'll get more volume. The 200 type tube seems to make a better detector than the 201-A. Adjust the filament on the tube until it has just turned orange color. Conversations ran on and on in this manner. The "Brandos" earphones seems to give more volume than the "Murdock" model 55 does. I hear that someone is making an earphone that you can attach to your phonograph and you can hear all over the room!

In short, the appeal to hear distant stations over-shadowed the actual program content of the station. Everyone was an armchair adventurer. Hearing places they had never been, and most likely never would. Circuits? There were a million of them. Magazines sprouted tubes, earphones, speakers, chassis, bakelite for front panels, knobs, resistors, condensers, wire and all those goodies so vital to building a radio. The thrill of the chase! Always that chance that a new circuit could be devised. Indeed they were too. In 1921 there were 10,000 separate patents issued in one week. Most only took two weeks to go through the patent office. In 1970 it takes several years to do this.

Newspapers all had a radioman writing articles to explain how to do it. everyday would be a new circuit. Here's a typical letter addressed to the editor of a radio column of the Cincinnati Enquirer for 1924. The person writing the letter had built a one-tube receiver-look what he heard on it!

WHAT IS YOUR DX RECORD?

September 8, 1924

Editor
Cincinnati "Enquirer"
Cincinnati, Ohio

Dear Sir:

I read the Enquirer radio section last Sunday and found that it is very interesting, especially the feature, "With the Radio Reviewer."

I keep a record of the good radio nights myself and am sending mine for Thursday, Friday, and Saturday of last week, which were the best nights this summer for me. I use a single-tube Reinartz receiver with an antenna 65-feet long and 35-feet high.

My record for September 4th, 1924 contains; WSAI, WMH, KDKA, WBZ, WCBD, WGY, WHAS, WHAA, WTAB, WYAY, KFKN, WAAW, WJAX, WHB, WCAE, WFAA, WEBH, WSB, WMC, WLW, KYW, WWJ, KFRR, KFIX, WNYC, WEAF, WGN, WABN, and WLS.

Friday night I got nearly all of the above, with the addition of WBAV, Columbus; WGAW, Altoona, KQV, Pittsburgh; WNAC, Boston; WHO, Des Moines; WOS, Jefferson City; CFCE Montreal, CKY Winnipeg; CYL, Mexico City; WDAR, Philadelphia, and WJAM, Cedar Rapids.

Saturday night I added KPO, San Francisco; PWM, Havana, and KGO, Oakland. This is my best record for September using only one tube. My total list of stations contains 228, with 12 in Canada, one in Puerto Rico, two in Cuba, one in Mexico, and five in California. I hope to get Honolulu before next spring.

Let's hear from some more DX hunters.

Signed

Virgil Stanfield,
Clarksville, Ohio

IN JULY OF 1922 THE FOLLOWING RULES APPLIED TO ALL STATIONS

Market or weather reports shall use a wavelength of 485-meters and broadcast music, concerts, lectures, etc. shall use a wavelength of 360-meters.

REGULATIONS PERTAINING TO WEATHER, CROP, AND MARKET REPORTS

JULY 1922

1. Forecasts, warnings, and weather reports issued by the Weather Bureau and crop and market reports issued or approved by the Bureau of Markets and Crop estimates shall be broadcasted only from radio stations authorized and licensed to do so by the Bureau of Navigation, Department of Commerce.
2. Broadcasting of weather forecasts and information and crop and market reports shall be confined to radio stations properly equipped for the work and operated by persons holding a commercial second-class or a higher grade of license.
3. No plant will be licensed by the Bureau of Navigation to disseminate weather forecast and information or crop and market reports, except on the approval of the chief of the Weather Bureau and of the chief of the Bureau of Markets and Crop estimates, respectively.
4. The call letter and location of the station and the official authenticity of the information shall be announced preliminary to each broadcast, and is approximately as follows:
5. The laws pertaining to the issuance of weather forecasts shall be observed. violators of the following law will be prosecuted.

SECTION 61

Whoever shall knowingly, issue or publish any counterfeit weather forecast or warning of weather conditions falsely representing such forecast or warning to have been issued or published by the Weather Bureau, United States Signal Service, or other branch of the Government service, shall be fined not more than five hundred dollars, or imprisoned not more than ninety days, or both. (act of March 4, 1909)

* * * * *

Excitement? You bet. Adventure? Yes sir. Accomplishment? No doubt about that. Those early years were really something. Radio went through its adolescent stage until 1927-28 and things began to take a more tangible form. Networks were going in the eastern part of the U.S. and a few were aired here in Cincinnati.

In the beginning most people received a daily newspaper and this was the principle means of obtaining the news. A newspaper spends much time in gathering the news from many different sources and then has to edit, set up in type, and distribute the paper. Those all, of course, take time. Radio, on the other hand, could do all these things immediately. The sounds of life were seized on, and a bitter battle ensued between print and radio. But the division never became sharply defined as most people had already become focused to print and not to the spoken word. Others who were unfocused did respond to these sounds of life. Although the medium of radio and print are not similar, they do resemble one another in many respects. Neither needed scene carpenters, but relied heavily upon the imagination of the reader or listener. Radio transcends all the physical limitations of the printed word. You can take radio with you and the news is instant, as it happens. It is for an active audience, shopping, lunchroom, working, driving, bathing, cooking, and all the other human exercises. Radio is a constant companion no matter where you are, or what you may be doing.

Radio relies on music for diet. Music is one form of communication that transcends all language barriers. It was Walt Whitman who said: "All music is what awakens from you when you are reminded by the instruments."

Thus radio in later years ceased the narrative form, and utilized the more common form of music. It used the human voice also but only to tell you something, warn you of dangers, tell you what was going on, etc. All this done in a short space of time as radio could no longer hold audiences for prolonged spells as it did in the beginning. The competition for attention dictated this type of programming after television.

A program that needs no introduction began on WLW October 20th of 1930. The first broadcast was a period of smooth, restful melody and verse, that over the years was to lull countless millions to the land of sleep...The voice was Arthur Ainsworth's.

MOON RIVER

Moon River, a lazy stream of dreams,
Where vain desires forget themselves,
In the loveliness of sleep.
Moon River, enchanted white river,
Where nothing is but sleep.

As radio knew no boundaries for its audience, names became household words in almost every city in the land. Certain ones did become associated with a particular city. If I mention some names of programs long gone by, it will ring a bell with a certain age group. I suppose a lament for old-radio would develop a degree of nostalgia, and I suppose this is healthy, if it is taken in a form of remembrance of things as they were. Much of the program fare was something to be very proud of, and certainly always in good taste. Radio had an uplifting force as no other medium did.

In radio on the Cincinnati scene of course was Peter Grant who came to WLW from St. Louis in 1932. WLW's conference call was one program in the early evenings that was a must for me. The combining of the thoughts from three different cities, and three different environments, produced a well rounded picture of the days' happenings from Cincinnati, Dayton, and Columbus, Ohio...Sid Ten Eyck with his own variety show in the 30's...remember Walt Phillips and how quick of wit was he...someone would start a sentence, and he would finish it-even quicker than the original person could have...Peter Grant had some difficulties because his voice was a sound alike for President Roosevelt...once he deliberately imitated Roosevelt's voice and one of the networks had a time extricating themselves from this predicament...Don Ameche and the first nighter show... "The curtain falls on our little Theatre of Times Square." I suppose to most people there always was a WLW, one of those things like an American Flag and ice cream. Would-be announcers would talk to themselves; "This is WLW-The Nation's Station- Cincinnati, Ohio, hoping someday to say that over WLW mikes. In the midwest area of the U.S. everybody knew about Cincinnati from WLW. No matter where you were in the United States you would find yourself tuning in WLW.

For those who want more detail on actual programs I heartily recommend the book "A pictorial History of Radio" written by Irving Settel. Complete histories of almost every program with suitable pictures are in it.

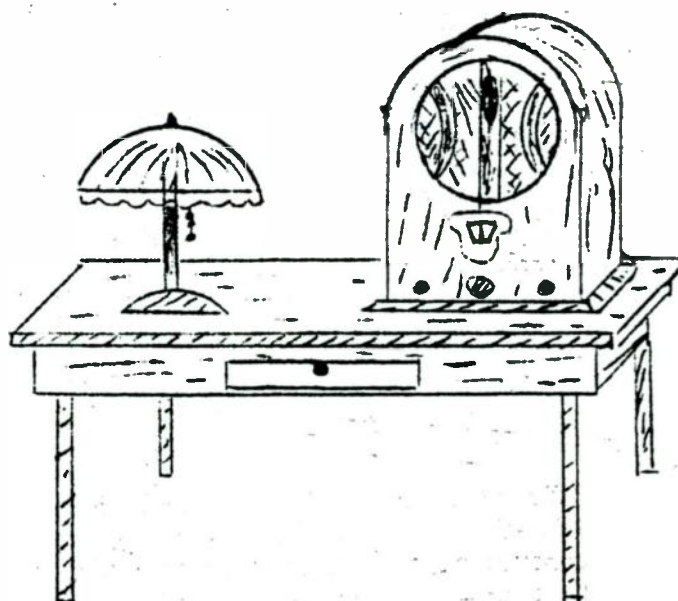
There were many monthly magazines who catered to this new group. White's Radio Log with a listing of stations by Call letters, Cities, and by frequency was a must for the listener. Most of the others combined technical articles with program notes. Why technical articles for the general listener? Make no mistake, radio was, and is, a technical subject, so the two were coessential.

In 1932-they were saying

Bits and pieces of written material from the reviewers...my second week in Cincinnati is almost over and I'm sort of getting used to it...At first, I must confess I was homesick for the old Kialto and my dear friends, and I was worried about getting news to you, but I've figured it out this way: of course, you'll be interested in what's

going on around here in the middle west, because it'll be new stamping grounds for some of you, and if you know this part of the country it will bring back memories-and, what's more, I am receiving news from the old Rialto right along; my old pals see to that, and after all, time and space mean nothing to radio...

Billie Dauscha arrived in these here parts a few days ago...of course, you remember Billie...she has been on many of your favorite radio programs; Billie came by plane...took only seven hours to get here via American Airways; we were out to the airport yesterday taking pictures(Lunken Airport) and those planes are marvelous things so compact and clean-cut...I've always been scared of 'em...Ed Wynn is here this week; he is broadcasting from the theatre, selling tickets for it and giving the surplus to the unemployed; he's on the air from WSAI at exactly the same time as I am on WLW, so I might rate him as opposition...Don Voorhoes and Graham McNamee came in from New York to be present at the broadcast on Tuesday...Wynn opened to Capacity and will probably do good business at the Schubert this week as he is well liked in this city of Cincinnati...My old sidekick from NBC, Earl Oxford, is with him...Earl and I worked together on "Matinee Gams," over WJZ three years ago(1929).



The "CATHEDRAL" Table Radio

The Mooney Brothers, known as "The Sunshine Boys," are doing nicely on WLW...there's one little lady here who is just as sweet as honey, and that's Grace Clauve Raine...She's no bigger than a pint o' cider, with tiny little feet and hands, but those hands can play piano just the same, and direct vocal quartettes and choruses...I listened to her rehearse "Pinafore" the other evening and must say that she has a real flair for Gilbert and Sullivan. Her musical stock company are like well-trained soldiers and really surprised me at the way they read G.&S.'s tricky score...There's a clever boy here named Don Becker, a Kentucky lad, just a youngster...He writes a series of spooky radio programs called "Tales of Gerror"- and if you like your hair to stand up straight, your blood to curdle and your skin to be covered with goose pimples-just listen in to Don's program, Monday and Tuesday evenings at 10:30...My radio's on, and Francis Ingram is conducting her "Thru the Looking Glass" program over WABC...I recognize the character of Marian the chatty lassie...it's the talkative Marcella Shields...her voice sounds like home...

We are very ritzy here at the Netherland Plaza Hotel...Graham McNamee, Don Voorhoes and Ben Larsen, NBC control engineer, paid us a flying visit; Didn't stay long...took charge of Ed Wynn's broadcasts and then departed for New York by plane...His flying business is getting to be quite the thing...Gus Arnheim's band is leaving the Netherland's Plaza for his old stamping ground out among the sunshine and flowers of California...Jan Garber(Cincinnati orchestra) and his band will follow Gus in here. Henry Theis is moving his band from the Hotel Gibson here in Cincinnati to the Club Oriole in Detroit; of course, Earl Grayson, his singer, goes with him...Met up with two good music boys here-Billy White of Feist's (no relation to Johnny of the same firm, but just as good a fellow), Mr. Schwartz of Witmark, and Kern Aylward of Berlin's...had lunch with them yesterday...Abe Farb of Miller's also came up to the studio; he's a nice little fellow...and who do you think is coming in to take Theis's place at the Gibson? None other than our old pal Larry Funk...you surely remember him and his band of a thousand melodies, the "Tea Timers" and other titles over WUL...Larry and I are old friends and worked together over NBC...it will surely be a mighty good thing to see the boy again and reminisce over old times.

"A piece of good news seeps through the 'ETHER' from NBC...Carveth Wells is back from his exploration trip and will be back on the air with his weekly broadcasts for the Continental Oil Company over an NBC network...look for this in your local program announcements...it's well worth while... Do you know that Edith Meiser is an actress and plays parts in "Fata Morgana," "The Guardsman" and "The Chief Thing" before she went into the business of writing radio scripts?...and that Ford Bond used to be a singer before he became an announcer?...He also sang tenor solos on the same program(WHAS)...This happened when he made his debut over WHAS in Louisville, Ky., in his home town. This happened in 1922 and in 1929 he joined the announcer staff of NBC and has remained with them ever since...I'll tell you a little secret about Ford; he writes short stories and reads them to his friends on the slightest provocation...

but you don't mind it, the stories are just not bad and his voice is so soothing and mellow-like a southern'cello...Donald Novis, that sweet singer of NBC, comes naturally by his music...his mother was Charlotte Lewis, a well-known concert pianist of Pasadena, Cal., his father was the late Frederick Novis, a church soloist and concert singer; his brother Edward studied voice abroad, and his sister Mary is also a concert singer...The only unmusical member of the family is Din's brother Harold, who is a physical education instructor in California...Have you heard Irving Bibb's latest song, "I was taken by Storm?" very good dramatic ballad; you'll be hearing it plenty over the ETHER...Dear Gene Brown and Bissell Brooks of Baltimore, I have not forgotten you-but hardly have a moment to spare; I'll surprise you one of these days with a nice fat letter...One thing I can tell you about WLW, Cincinnati...I've landed among the best bunch of people I've met in some time...their morale is marvellous...just like one big happy family...and they are all so obliging, the artists, musicians, directors, secretaries, executives-even the telephone operators and elevator boys just can't do enough to make one feel at home...

Goodness gracious! Must get some CBS news in for you-well, here's what I've heard; Morton Downey has re-signed with Columbia...Kate Smith is in Hollywood... "Margo" puts in all day Sunday's riding horseback on Chicago bridle paths...Two of the Mills brothers had their tonsils removed recently...Vaughn De Loath is still playing vaudeville...Elsie Fitts collects buttons...Whispering "Jack Smith" lets his mother select all his clothes...Ozzie Nelson and "Scrappy" Lambert attended Tutuors University...David Percy is Columbia's "Wandering Boy"...Augustus Barratt writes the scripts of the "Magis Voice;" Elsie Fitts plays it...well, perhaps I haven't done so badly in the matter of news for an out-of-towner-have I? But must get along to rehearsal so with a warning glance backward toward New York, I'll say so-long until next week." (written by Alice Remler-1 932)

Biographical Brevities-about Billie Tauscha

Billie was born in the heart of the city of New York...her family has been residing there for the last three generations, her great-grandfather coming from Prague, Bohemia, in the early eighties...Billie went to Public school No. 6 at 85th street and Madison avenue and graduated from Evander Childs School not so very long ago-about 1920-She was always stage struck, and when the opportunity came to join Morris Gest's production "Afgar" as a show girl in 1920, she took advantage

of it...she was known as the youngest show girl in 1920 on Broadway...After that came vaudeville and nights clubs. But, Billie got tired of that, and when Walter Neff of WOR heard her and decided that she was good material for radio-well, Billie decided so too...that was four years ago(1928) and she's been on radio ever since. ...over WOR she was with "Tuneful Tales,"..."Checker Cabbies,"..."Playhouse,"... and "Tea Timers"...she then graduated to the chains and appeared on "La Palina," "True Story,"..."Blue Coal," and "detective stories with the 'Shadow,'"...Billie was usually cast as a tough girl, a character she plays very well...on WJZ she appeared on the Rinso program and more recently with Andy Sanella and his ork on a very excellent sustaining program...she is now a featured member of the vocal staff of WLW in Cincinnati(1932) where so many radio stars have been made... listen to her Monday nights at 8:30 over WLW.

Sid Ten Eyck-WCKY and WLW

When I first met Sid Ten Eyck back in 1932 he didn't even know it. You see, I was 15-years old and sitting in front of a radio in Norwood, Ohio, and Sid was on the radio over WLW. So we sort of met by proxy. I actually met him in person many years later in 1969. Sid had two separate careers. A pioneer broadcaster, and 25-years with the Department of Corrections in California.

Sid entered broadcasting in 1929 over the mike of WCKY just a few weeks after they had signed-on the station. I caught Sid in an interview over this same station in July of 1971, 42 years later, as he was talking to Don Herman on "Community Forum."

Sid said "There were only four stations in Cincinnati when L.B. Wilson signed on WCKY in October of 1929. There were no schools for radio, and the secret was to be in the right place at the right time if you wanted to try radio. I learned to know L.B. Wilson, he was a small man in stature, but with a heart bigger than he himself. He was president of the People Liberty Bank at sixth and Madison avenues in Covington, Kentucky. I had graduated from high school in June of 1922 and joined the Marine corps in September of that year. During my three year hitch I managed to learn multigraph printing and when I returned home in 1925 I started work for several printing firms in the Cincinnati area. Among those was a large grocery chain and I worked for the Multigraph Printing Company in the Southern Ohio Bank building on Main Street. I was sort of a traveling repairman, and in short, like they say, I was with the company. The company wanted a salesman, and in a round-about way I ended up at the Peoples Bank in Covington. Seemed like the folks at the bank had sold the printing firm I just mentioned on the idea that they could save money if they printed their own checks etc. So I started to work in the basement of the bank. My job was printer for the checks, envelopes, etc., at the trade I had learned in the Marine Corps. Across the street from the bank was a five-story building and construction was going on for the new radio station. Every chance I had I would find an excuse to run over and see what was going on."

"Experience had been gained by L.B. Wilson when he observed how the other radio stations in the area had built their studios. The day finally arrived when WCKY was ready to go on the air. I had been spending my days at the bank and almost every evening I was at the radio station. When WCKY signed on the announcer was Leo Goldsmith who was helped by Maurice Thompson as a standby announcer. "This is the L.B. Wilson station-WCKY, Covington, Kentucky," I made my debut several days later. L.B. Wilson also owned the Liberty Theatre next door to the bank and each morning I would take a mike over to the theatre and do a show at 8:30. I stood up in the balcony so I could pick-up the great organ they had there. Howard Hodges played the Organ which had a tremendous tone and I would speak in a solemn tone, as though intoning the death of a president 'Good Morning, Ladies and Gentlemen, this is WCKY, owned and operated by L.B. Wilson and operating upon a frequency of 1490 kilocycles with a power of 5,000-watts." Sid then said "I left WCKY and went to WLW. The program I had was called 'The Doodlesockers' and I had such people as Fat's Waller, Jane Froman, and Charlie Dameron was the singer for the staff ork under Henry Thoes. The main theme of the program was my grandfather 'Tar-Baby-Ten Eyck. 'He was a man's man who died with a pool cue in one hand and a

fermented flagon of fig-juice in the other." Each story I told was one that I wrote about my grandfather being the greatest this, or the greatest that who ever was. He was the greatest airplane pilot the world had ever known. He was the first man to do an outside loop wearing a high-silk-hat and wearing ear muffs! He was the greatest beer drinker in the days of prohibition. I got awful letters telling me not to mention beer on the air. Well, he was a great beer drinker, but it was habit of throwing the empties over the side of the plane that got us both in trouble. I think this led to the building of ten-roofs on houses, for protection! The authorities gave my grandfather an ultimatum-either you give up beer drinking, or give up flying. The beer won out and as a result aviation lost one of its enthusiasts."

Sid Ten Eyck's story would make a book in itself, and I sincerely hope that Sid finds the time to write it.

Sid left WLW and went to New York for NBC. He had a program fed to the network called "Weekend Review", and it was sponsored. He came back to WCKY and after a while left for the CBS station in Philadelphia, WCAU. Then to WMAR and back again to WCKY. In 1939 we find him at WHCU, Cornell University which was controlled by WESG at Elmira, New York. WREX at Elmira was another station he worked at. After Pearl Harbor we find Sid in the U.S. Navy and after the war he began his second career with the California department of corrections.

To most people the real "Fabulous era" of radio was from the years 1932 extending up until the mid-50's. The "Soap Operas days, and Cincinnati headed the list of not-fad shows in this realm.

Radio history has it that the Amos'n' Andy show ran for better than 5000 consecutive programs, without a miss. Cincinnati also began a series that was to run for 6000 before its demise. The "father" of Soap-opera was Bill Ramsey who was the director of radio for Proctor and Gamble. William Ramsey much preferred the name "daytime serials" for his productions was a pet peeve, but the colloquial name won out and became as familiar to radio dialers as apple pie. These weekday tear-jerkers began with the selection of a cast in 1933. There were a grand total of 13 of these sudsy dramas going at one time. They swept the ratings with the first ten places in popularity. Charlton Wallace said in his column April 8, 1955 "Bill Ramsey is considered the individual most responsible for all this. The lachrymose and grateful housewives of America should erect a statue in honor of "The father of Soap Operas."

When "Ma Perkins" made 6000 broadcasts without a miss in August of 1957 it was Greg Olberding, publicity director of WKRC-TV who wrote a story from first-hand experience. His family and Ma-in real life Virginia Payne-were neighbors on Academy avenue in Price Hill.

"Quietly, with hardly a ripple of excitement, Cincinnati's own Virginia Payne proudly passed a milestone in broadcasting annals achieved by few in the profession. Early this week she celebrated her twenty-fifth anniversary in the role of radio's beloved "Ma Perkins," the only actress to portray the role.

It was 25-years ago in an unadorned WLW studio at Arlington Street that young Virginia Payne originated the role of an elderly widowed lumberyard operator for a 16-week tryout. So successful was the story and so successful was Virginia in the title role that "Ma Perkins" was moved to the NBC network and originated from Chicago. Later "Ma" moved to CBS and since 1947 the program has originated in New York. Virginia Payne has starred in every episode-well over 6,000 in 25 years-without missing a single broadcast.(1957)

Today "Ma Perkins" is heard locally over WKRC weekdays at 1:15 p.m. Unlike many who leave Cincinnati to achieve national fame, seldom to return. Virginia comes home quite often to the home of her mother Mrs. John L. Payne at 866 Academy avenue, Price

Hill, where she grew up. Her sister, Mrs. Adele Hollem, also lives there. Dr. John L. Payne, 142 Crestmont, Clifton, his wife Peggy and their children, Margaret Ann and John Lewis, complete the close family group with whom Virginia keeps in frequent contact. During a family visit to Academy avenue earlier this summer, Virginia sat on the front porch and reminisced:

"I was interested in acting as early as I can remember. I think most little girls are, even if it's no more than acting grown up with their dolls. I used to 'father' the neighborhood children-the Radines, the Olberdings, the Aulls-in Radina's barn across the street. It was large, a perfect place for a theater. It had only one drawback, a large oil spot in the center of the stage where the automobiles were parked. And I could never understand why my mother would not let me use her living room rug when it would have covered the spot perfectly."

"An old spinning wheel belonging to her Grandmother Payne of North Carolina which still stands in front of the Payne fireplace, was a favorite prop of Virginia's. "She had it in every play," recalled her sister Adele, who, often reluctantly, was pressed into service. "She was always in complete charge. She knew what she wanted us to do, and we did it."

During her early days, acting, in Cincinnati at Schuster-Martin and later at UC with the Mimmers Guild, Virginia Payne was an intense dramatic student. "Often we would see Virginia going up Academy avenue to get the bus, lips moving a mile a minute, reciting her lines, oblivious to everything around her, Paul Olberding, a former neighbor said.

Bill Martin, director of Schuster-Martin school, who has been a Virginia Payne booster of long standing, said: "She came to us when she was still in high school, and we knew she was going to be great." She taught on the Schuster-Martin Faculty until "Ma Perkins" beckoned.

Helen Roso, a teacher at Schuster-Martin who has remained a close friend through the years, was the person who actually took Virginia to a radio station for the first time to do dramatic leads in stories of the operas.

"But I don't want to take credit or act like a discoverer," she said, "Virginia would have gotten there anyway, she was that good." The thing that most impressed Helen Roso about Virginia was her insight into characterization, so rare in a young student.

"Virginia could understand age. She didn't have to live it, she could imagine it." For her graduation recital at Schuster-Martin, she played a French maid who loved an American soldier. It would have done credit to any actress with ten times her experience."

Before televisions, P.&G. was radio's biggest single time buyer and, at one time, sponsored 14 daytime serials-three and a half hours a day, five days per week. Needless to say, they sold a lot of soap. By 1956 there were only four serials running on radio. "Ma Perkins," along with "Pepper Young's Family," and "Guiding Light," which is still running on TV. "Pepper Young" was supposed to continue on TV, but somehow TV got slighted and poor Pepper is hovering around some inner-ear some place. The program "Right to Happiness" moved to CBS. Look for the last program of "Ma Perkins" in the wlv chapter.

My favorite programs on radio were musical. The Voice of Firestone was one, and The Bell Telephone Hour was another and at the top of the list was Paul Lavallo and his Cities Service "Band Of America."

We take you back to 1948. It is June 4, 1948, and Paul Lavallo stands poised on the conductor's podium. There is dead silence in the huge broadcasting studio. Forty-eight waiting members of the Band of America eyed the raised conductor's baton as if it held

some strange hypnotic fascination for them. Now was the dread five-seconds before air time when the cold chill of nervous tension gripped even the most experienced player. It was made doubly nerve-wracking by the fact that this was the important debut of a daring entertainment experiment. Paul Lavallo grinned amiably at his musicians in an effort to convey the confidence that was unhappily absent from his quaking knees. In the glassed-in control booth, the program director raised an imperious finger, flicked it with swift confidence-and the Cities Service Band of America was on the air. (taken from jacket of RCA "America's Favorite Marches.")

"The Cities Service Band of America exploded into life in a sound-proof radio studio like a barrel of dynamite going off in the hushed reading room of a public library.." So said Leonard Raphael about the band. He continued "It all began when Merlin H. "Deac" Aylesworth, former president of the National Broadcasting Company, buttonholed Paul Lavallo and told the maestro that he should consider leading a brass band. Lavallo laughed uneasily and tried to change the subject. But Aylesworth, representing Lavallo's sponsor, persisted. Lavallo's highly trained ears had been conditioned to the lush sounds of a score of violins playing melodies from romantic operettas, and he winced at the thought of a thundering brass band. He had horrible visions of slowly losing his hearing and his mind-which would be almost as tremendous a catastrophe as losing his sponsor. Finally, Lavallo decided to make sure of his sponsor and risk losing his ears and intellect." Paul Lavallo scoured the country for the best band musicians, and the rest is radio history.

Mr. Brock Brower was sympathizing with a person who asked "Why don't you put on some good radio shows like you used to?" He said:"I can sympathize with you, I think I can too. Radio, for me, is part of the lost childhood, and those old-time radio voices-the Easy Aces, pushing Anacin like a doctor's prescription, Jack Armstrong, Baby Snooks, Lorenzo Jones, the inventor, and his wife Bollo(a faint strain fo Funiculi-Funicula here) Stella Dallas, Captain Midnight, and Sam Spade-have set up an everlasting static in some inner ear. It's the only reception left them nowadays. I frankly doubt if you get them on a transistor set, even if they should be hovering about on some ghostly frequency. Too plastic and puny, they needed the mahogany comfort of the old stand-up console that used to occupy one end of the living room like Fort Ticonderoga. They fed on a repudiated substance called ether, and resided in a band of frequencies on the old disk-dials marked standard broadcast band, and they have vanished as the console's electrical innards which made excellent forage, at one time, for beginning radio hams.

Sometimes you can catch a five-minute vestigial trace of them on Monitor, or actually "see" a few of them, like Jack Benny and the Lone Ranger, on TV, but their unique qualities-which were strickly for the listening ear-are gone. How, for instance, would you ever "Zoom" in on Fibber McGee's closet? That avalanche of roller-skates, vacuum-cleaner parts, and bottles of Johnson's Glo Coat, then the opic pause, and finally the falling dinner bell: it was pure sound, and it's a relief to find NBC's innocuous revival of Fibber McGee and Molly keeping at least that closet sacred-and off cam era.." And as Brock Brower continued he ended with this paragraph:"In fact, old-time radio really ended at the foot of Allen's alley, that twisted little by-lane of the public mind. Every Sunday, Allen, the pollster, strolled down there and knocked on doors with his tiny question. All he got for answer was bombast and opinionation (Senator Claghorn)., small wit (Titus Moody), and female dizziness (Portland Hoffa).., all the virtues of the great mass audience. It was hilarious, but it was a cul-de-sac. We could hear a whisper of ourselves, and we couldn't get out. The spell was broken, something else had to come after."

"What came after was television, and when they tried abortively to put Allen's Alley on the TV screen, they ended up, significantly, with a bunch of puppets."

The history of WLW presents a story of American enterprise and ingenuity as colorful as any story in the world. It has the distinction of being one of the few radio stations in all of America of running 500,000-watts of power. This it did from New Years Eve of 1934 until 1939. From a modest beginning of about 20-watts power to the super-power range is a real success story of one man. Growth of WLW was constant and it operated on different wavelengths until 1927 when it stabilized at 700 kilocycles and then in 1928 it increased power to 50,000-watts.

I think you could call Powell Crosley an innovator and not fall short of the mark. He was forever trying new things. For instance, he manufactured a phonograph under the name of "MARION" and he made a new type of automobile tire in 1921 that used some sort of sponge inside instead of air! Then too, he built a two cycle auto in 1938 using an air-cooled engine. This was built in his Richmond, Indiana, plant. I drove one of these as a demonstration shortly after he manufactured it. The show room was at 8th and Race streets. The salesman was A.J. Valentine and he had asked me to take it up to Devou Park in Covington at the Orphans home with the idea in mind I was to take all of the children a ride in it. We had a ball driving that small car around. He later made a four cylinder model in 1947. This is a separate story, and an interesting one too. Later on he developed an electronic gadget to make hair grow. He was in the electric supply business in 1920, and as this was the real start of the fabulous radio years, it can safely be said that he grew up with radio. He began manufacturing tube sockets for the new industry and numerous other components for those who built their own radios. To tell the truth the only way you could have a radio in those days was to build it yourself. Crosley and his engineer, Dorman Israel, designed a new type of tuning condenser which he called a "book condenser."

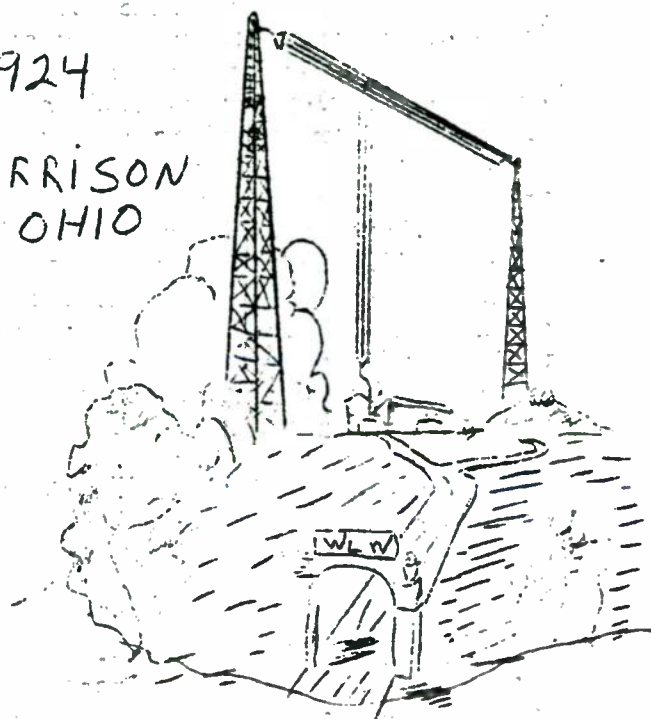
Crosley was taught the fundamentals of radio broadcasting by Hamilton Fordyce, who had a radio parts store on 12th street near the Parkway. His partner was Russell Blair who for many years was one of Crosley's engineers. The spring of 1921 found Mr. Crosley deep in experimental research, testing dials, trying new tubes and circuits for amplifiers and adding to his knowledge of radio that eventually led him into the far-flung operations that today (1938) include WLW-WSAI-WLWO, a short-wave station, plus a high-frequency transmitter WBXAL and a facsimile picture radio station. Today, in 1970, the vast empire of the Crosley has spread out from Cincinnati to surrounding cities of Dayton and Columbus, Ohio and other operations across the country.

It was March 22, 1922, that the call letters of WLW were first sent out into the countryside. Crosley had bought out the Precision Equipment plant on Gilbert avenue just shortly before that. The station call letters of the company were WMH which later was re-built on the roof of the Hotel Alms. (see the WKRC story.)

WLW'S CHRISTMAS GIFT

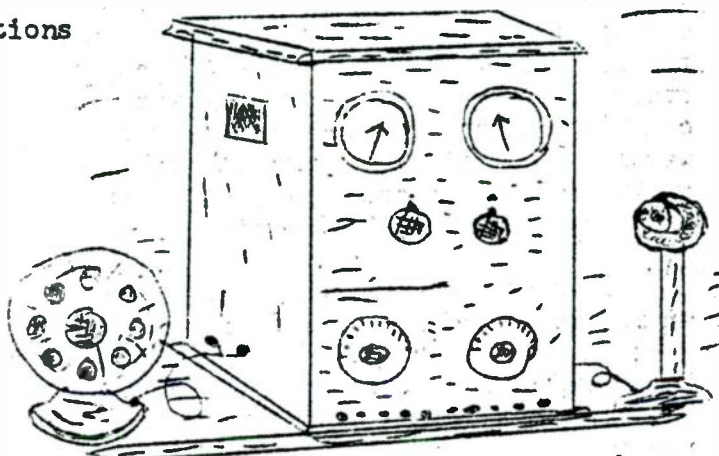
1924

HARRISON
OHIO



Progress at WLW epitomizes that of radio in general. In 1921 Powel Crosley, Jr., declared "If people were to buy radio sets it would be necessary to furnish listeners with entertainment." He built a small experimental broadcasting station, using 20-watts power and the call letters of 8CR. Nightly in the living room of his home Crosley played again and again a victrola recording of Rimsky-Korsakoff's "Song of India," and asked all who heard the broadcast to telephone him. The answers were few, but they sufficed to convince him that he should go ahead with his experimenting.

At the time few broadcasting stations in existence operated "hit or miss" programs on an irregular schedule. In July 1921 Crosley was granted an experimental broadcasting license; a few months later he moved his transmitter and equipment to the Crosley Plant on Hamilton Avenue. In March of 1922 Crosley acquired the first license using the call letters of WLW. In 1923 Crosley then acquired the controlling interest in the Precision Equipment Company which owned the radio station WMH. He discontinued the station at that time. Ever since, Crosley then concentrated his interest in his WLW. In 1924 he established the Crosley Radio Corporation.



1ST 20-WATT TRANSMITTER
DOUBLE-BUTTON CARBON MIKE AND
A SINGLE-BUTTON TELEPHONE MIKE

During the fall of 1924, when Crosley anticipated permission from the Department of Commerce to increase WLW's power to five-thousand watts, new studios were constructed at the Crosley manufacturing plant in Brighton. With this increased power granted early in 1925, the world's first remote controlled transmitter equipment to be used for radio broadcasting began operations from a plant in Harrison, Ohio, 22-miles from the studios in Cincinnati.

In 1927 WLW secured a cleared channel of seven hundred kilocycles. On May 25, 1928 the Federal Radio Commission authorized the Crosley Radio Corporation to construct a 50,000-watt transmitter for WLW. Five months later, on October 4, the new transmitter at Mason, Ohio, about 25-miles from the studios, began operations. In 1933 the WLW studios were moved to the eighth floor of the Crosley Plant on Arlington Street, and five years later WLW was the first Cincinnati station to start experimental facsimile broadcasts. Using 50-thousand watts power on a channel of 700 Kc/s, the station broadcasts from 2 to 5:45 a.m. daily a program of printed news and pictures which were received by special apparatus at certain experimental stations.

WLW used the W.C. Finch system in conducting reception and public appeal tests. The apparatus employs rolled dry paper with a sensitized carbon back which turns black, or to half-tone values by the facsimile signals. From eight to ten minutes is needed to record an 8 by 10-inch photograph on the self-synchronized apparatus, which can be operated from any power source. About 15 other American broadcasting stations are conducting facsimile tests. Facsimile transmission, invented by Captain R.G. Ranger in 1924, is used in transatlantic transfers of photographs by radio. In 1938 Crosley still owned WSAI with the studios for both stations in the same building on Arlington Street. The first WLW programs emanated from a building on Hamilton avenue in 1922.

On May 5th of 1922 the newspaper listed those programs for WLW. "The Aeolian concert company, Oscar Koelker singer, and the east high school jazz orchestra will provide the music for the WLW broadcast program tonight. The orchestra is

composed of Earnest B. Daulton of the Conservatory of Music, George Mandoville, banjoist, Thomas Williams saxaphonist and Gilbert Garvin as saxaphonist. On May 9th of 1922 "The WLW broadcasting station will radiate the following program tonight at 8 O'clock in the customary 360-meter band.

Time after Time.....solo by Miss Ivy Buchtman
Souvenir.....Violin solo by Leo Weimer
Valse Op.34 No. 1.....Played by Ethel Latinska
Serenade.....Violin solo by Leo Weimer

On May 10th of 1922 WLW said:" Music by radio to be the subject of an address to be delivered by wireless by J. Herman Thuman, manager of the College of Music, at the radio broadcasting station of the Crosley Manufacturing Company, Northside, thursday evening. Mr. Thuman known far and wide as an authority on music and also an ardent radio-fan, has promised to explain how these two forms of entertainment are working hand in hand, how one benefits the other and of the interest musicians are taking in the broadcasting of musical programs." Then on May 12th of 1922;" Powell Crosley Jr., president of Crosley Manufacturing Company, Northside, received a request from Secretary of the Republican National Committee for information on broadcasting outfits and his opinion in regard to their use in political campaigns."

The official dedication program was on September 22, 1922, at the Crosley Radio Company's plant at Colerain avenue and Alfred Street. Miss Rose Boden who was born and raised in Clifton and whose father operated a downtown art store was the first singer on WLW. She sang three consecutive numbers on a program which lasted two hours all together. An audience of about 200 watched the first show, a 15-piece orchestra played for it and the many performers sat far back of the microphones. Miss Boden sang two Puccini numbers and Cootie's "To be Near You." The late William F. Wilsey, a former Enquirer publisher, gave an address on the show, according to a newspaper advertisement. Miss Boden was called among others from the two schools that now make up the University of Cincinnati's College Conservatory of Music to sing. She returned to Cincinnati in 1930 and made an appearance, as a guest, on WLW and several more until about 1945.



The first studio-draped like a tent-carbon-mike with a large megaphone on a wooden stand-1922

In those years the omcee of WLW shows was Fred Smith. It was Miss Boden's father who put on the first Christmas seals campaign ever in Cincinnati. His sister was an operatic star in Paris-known as La France-and this led him to inspire his daughter into show business. Miss Boden isn't awed by the difference in radio in comparing her 1922 stint and nowadays. "It doesn't shock me: I just take everyt hing for granted," she said. " You have to go along with the times." Professionally, she sang with a Cincinnati Native Nellie McBreen as the Bernardi Sisters after that auspicious first radio program. Her favorite memories were dates at New York City's Capitol Theater and Jimmy Durante's one-time club.

Mr. Crosley had hired Dorman Israel as his first engineer. In later years were to find persons like Ronald Rockwell, Jack Gray of the "Wireless Museum" at Mason, Ohio. Powell Crosley published a small book "The Simplicity of Radio" in 1923 in which he said;"Radio is no longer the plaything of the child. The progress and improvement of radio equipment has been so marked. Through broadcasting, we may expect a new democracy

of thought and the culmination of plans for a universal language. The magnitude of the radio audience is such that there can be spread ideas of culture and universal contact that will affect more people than have ever been reached by any agency with the possible exception of the printing press.

Although theories about radio engineering depend upon scientific and technical laws, it is not necessary to attempt to master these to be able to receive broadcast concerts and news in your own home. It is through the efforts of radio engineers that modern apparatus has been made possible and so simple that it is little more difficult to operate a radio set than to play a phonograph record. Radio takes its name from the word "radiate" which means the giving off of energy in all directions, just as the spokes on a wagon wheel protrude from the hub to the rim. You are familiar with the electrical energy sent over the wires which supply current to light your home, and the electrical force used in radio is similar to that. The difference between sending electrical energy through a wire and into the air is that the path of the former is limited to its wired lines, while the latter is unlimited, radiating in all directions.

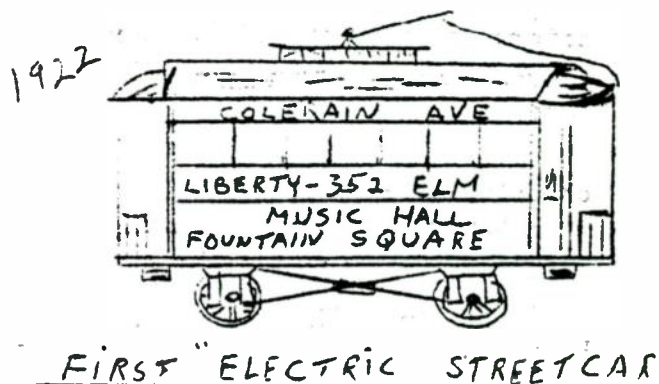
Radio waves are sent into the air and reach your receiving set just as the waves reach the edge of a pool after a stone is thrown into the water. The stone would represent the transmitter here at the radio station and the edge of the pool would be the same as your receiving set at home. The radio wave radiates electrical energy in every direction and it is possible for it to be collected by a radio receiving set and thus utilized by people many miles away at the same time and from the same source.

Radio broadcasting in this country has reached a point far in advance of that in any other country, a condition brought about to a great extent by the broad and far-reaching policies adopted by our government. Our Navy was the first agency to grasp the tremendous importance of wireless communication, and then when the great wave of interest in radio swept over the country, our generous government set up no barriers of restrictions to dwarf this new art and new industry in its infancy. Three short years have seen a fairy like development in radio broadcasting (1922). Beginning with sending out into the unknown, concerts of reproduced music from phonographs and player-pianos, the studio work has evolved into something very distinctive for it is now possible to arrange and produce performances of two and three hours duration that continue without a break. The large stations have for their theatre the entire continent, with occasional reaches to the other hemisphere. The better studios put on performances of brass bands, orchestras, instrumental and vocal solos, readings, speeches and plays. The entire business of broadcasting is still in a state of development, with a constant process of elimination and construction tending toward the permanent and definite values in what will make radio, eventually, one of the greatest factors in our general life. A microphone placed in any theatre, church or auditorium and connected by telephone line to the broadcast apparatus enables anyone with a receiving set, tuned to the station, to hear the performance.

But the real development of broadcasting will be evolved in the studio itself. Already the drama has been transformed into the radio-play, or radario, and this in turn will form the nucleus of the bigger and more definite radio program. Besides this, the utility of radio will constantly increase because of its quick transmission of news, its business and market reports, and its dissemination of education and culture."

The engineers who followed Dorman Israel were many. Al Swerling joined WLW in 1923, two years after it went on the air. Like most radio people of that day he had built his own two tube receiver. In fact, he got it working and was listening one day to WLW when he heard an announcement that they were looking for a commercial operator. He had written them a letter and within the week, he began working. That was in March of 1923. Robert Cooper whom I later worked for myself was one of the early engineers and a man named Fred Smith who had been an announcer and program director was hired. The early transmitter was a heising modulated system.

The first year the power was 1000-watts then a western Electric 1A was purchased and its power output was 5000-watts. Staying on the required wavelength was a problem then and the early microphones were a two-piece telephone set in which the mouthpiece was like a speaker, it fluted outward and the whole works was set in a formica cylinder about six-inches long packed with cotton. I am told there was a woodworking plant located on the first floor in the same building of WLW studios! The vibration was severe and this meant that the mike had to be suspended from a wooden stand to isolate it from the floor.

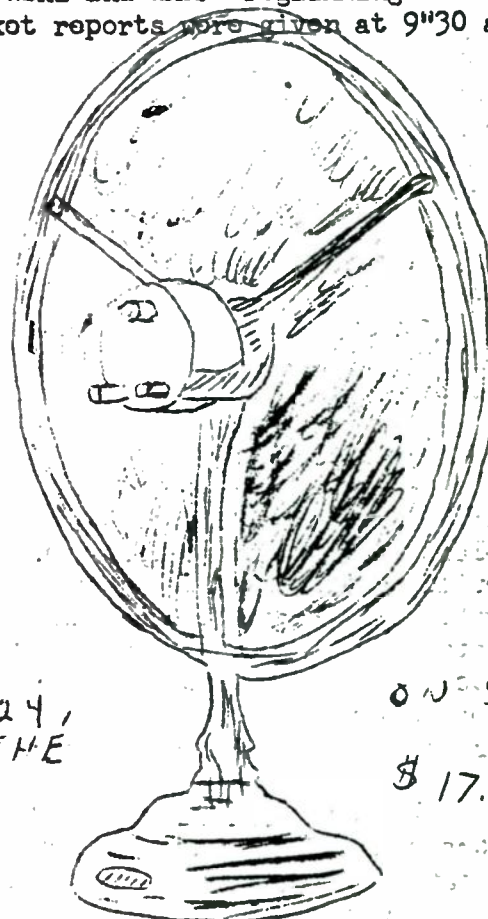


Al Swerling said in a magazine-article later "Mr. Crosley was impressed with me because I know both the land-line Morse code and the International Morse." International Morse is the one used in radio work. Al went on "The story goes that Powell would show people around the studio and he would always tell them he just couldn't learn the code no matter how hard he tried. The irony of it, as far as I was concerned, was that Crosley was making millions from his radio plant and broadcasting, while I was making \$32.50 per week!"

During the depression years radio came on strong with WLW because it proved a cheap form of entertainment for all. In 1929 WLW had gone from the 5000-watt job to 50,000-watts power. In 1934 the 500,000-watt transmitter was constructed by Crosley engineers and this stayed on the air until 1939 with WLW programs. It was taken off the air, as far as WLW commercial programs, in 1939, but continued on an experimental basis until 1943. Many of the U.S. soldiers listened-in from far-away places for their favorite shows.

In the early days WLW shared the wavelength with WSAI and WMH. Programming was spotty and a typical day would be one where stock market reports were given at 9:30 a.m. and again at 4 p.m. and then back on at 7 p.m. with programs until about 10:30 p.m. The first WLW remote broadcast was from a Presbyterian church. Graham McNamee was one of the early sportscasters. A man who worked at WLW engineering, and who really deserves a place in history, was Jim Rockwell. He was ingenious and built a lot of equipment. Perhaps the best known of all was his system of high fidelity "Cathode" modulation which he perfected for WLW and which gives WLW that fine sound you hear today. Al Swerling recalled "The first studio was about 12-feet wide by 20-feet long. I remember the day the entire Fort Thomas military band tried to get inside with 75-pieces- they didn't make it-half stood outside!"

In 1970 the actual height of WLW's tower is 708-feet, but at one time it was augmented by a flag-pole arrangement that soared to a total of 831-feet! The antenna rests on a single ceramic insulator which supports the combined force of 135-tons of steel, and more than 400-tons exerted by the guy wires pulling downward. The tower is guyed with eight one and seven-eighth-inch cables anchored 375-feet from the antenna base. At one time this antenna was augmented by a directional



ON SALE
\$ 17.50

RADIO "CONE" SPEAKER

antenna to protect CFRB in Toronto, Canada, when WLW was using 500 kilowatts of power at night. This directional system was unique in that it was the first designed to achieve both vertical and horizontal-angle suppression..

When WLW went on the air in 1922 the City of Cincinnati held an electrical exposition in Music hall. Listening to the radio became the evening amusement even though many could not understand how they could hear music without being in sight of the band!

WLW aired "Sokatory Hawkins" stories in 1927. These were written by Robert Schulkers who also narrated the show. These were later put in book form and I think every boy in the Cincinnati area read them. For comedy WLW had Glenn and Gene Carroll who were popular in the 20's with their show "Gene & Glenn" with Gene playing the part of Jake and Lena. There was a tenor named Joe White, who billed himself as "The Silver Masked Tenor." Do you remember hearing W.K.. "Old Man" Henderson, a folksy commentator of station KWKW, Shreveport, Louisiana? He began his show with the remark "Doggone your buttons, Don't go away." There was William Stoess who directed the WLW orchestra for Jane Froman when she began on WLW in 1926. How many remember when Fred Smith, the announcer, signed off WLW at night with "Goodni i i i i ight?"

At Mason, Ohio, is a Wireless Museum and the curator was Jack Gray. Jack passed away on August 1 of 1970 and Jim Weaver, who writes a weekly column in the Enquirer had this to say about him. "Death has silenced the telegraph key and transmitter of amateur station W8JDV, Mason, Ohio. George J. Gray died of cancer Saturday, August 1, 1970 at Christ Hospital. He was one of the most renowned "hams" in the tri-state area. Jack was born in Middletown in 1900. He became interested in wireless at the age of 12 and at 17 he became interested in becoming a marine wireless operator. He got a job with the Marconi wireless company. During the first world war he served as a Navy radioman and after the war worked in the old Crosley radio factory in Cincinnati. He was engineer for WLW radio and supervisor of the "Voice of America" station at Mason. Fascinated by early radio, Jack began collecting wireless memorabilia years ago. A garageful of items accumulated and later on he opened the Gray History of Wireless museum at his home in Mason. Jack compiled a book entitled "Bits of Wireless." Jack Gray was an outstanding gentleman. He will long be remembered by his fellow workers and radio amateur friends.

A newspaper article in 1924 said "The world's first remote controlled transmitter will be located at Harrison Ohio soon. It will be 5000-watts and will be in operation by Christmas. The two towers will be 200-foot tall and a building to house the resident operator. Special wires will carry the program from the studios to Harrison, Ohio.

In 1925 plans were being made to move WSAI to Mason, Ohio. The first building a two-story dwelling, is to house WSAI and will also include living quarters. Later on when WLW moved to this site the complex covered many acres. The WLW plant has its own cooling pond for cooling the huge 50,000-watt tubes and a new building to house WLW was built in 1928. In the days when WLW was operating 500,000-watts the transmitter consumed 15,450,000 kilo-watts of electric per year! The water cooling plant operated at 512 gallons per minute then. The buildings house, besides the transmitters, a well-equipped machine shop which includes a gas, arc, and spot welding equipment; metal lath; milling machine; engraving machine; sandor; drill press; metal brake; table saw; and all types of hand tools and electronic test gear.

WLW became known as the "Cradle Of Stars," and for good reason. Hundreds of persons made their start with WLW. Most of the greats of show business, vaudeville, theatre, and the arts, have made their appearances over WLW. Remember Millie and Bill McClusky, and Red Foley who came to WLW to air the Renfro-Vallou Barn Dance? Millie was the sister of the late Dolly Good and together they were known as "the Girls of the Golden West." Remember Arthur Chandler? His Raccoon coat? He played

the organ from about 1928 to as late as 1950 and it was he who played for Moon River. Newscaster Lou Douthat was on the air in the 40's. Names like Sid Cornell who wrote the script for "Crosley Follies" in the early 30's and who later I met at WKRC. He also wrote the "Kamrad Mysteries" in these same years. The name "Kamrad" was the name of a tube manufacturer located in Owensboro, Kentucky at the time. Crosley also used their tubes in making Crosley receivers.

How about the names of "Judy Perkins?" Anita Auch? Well, Judy was the singer on many WLW shows, and Anita, if memory serves me right, run a cooking school over the air. Jack Norwine the announcer... "Everybody's Farm" at Mason with Carrol McConahan... Glas Sule as secretary to Ruth Lyons program... We've got all the names and all the programs in just a few minutes. First some more history.

December 18, 1924 WLW 423-meters

12:15 till 1 P.M.....Woody Meyers Dance Orchestra
4:00 P.M.....Piano solo by Adelaide Apfel
6:00 P.M.....Music Hour
10:00 P.M.....3-minute message from U.S.Civil Service
10:03 P.M.....Doharty Melody Boys

Wednesday-December 19th 1924 WLW 423-meters

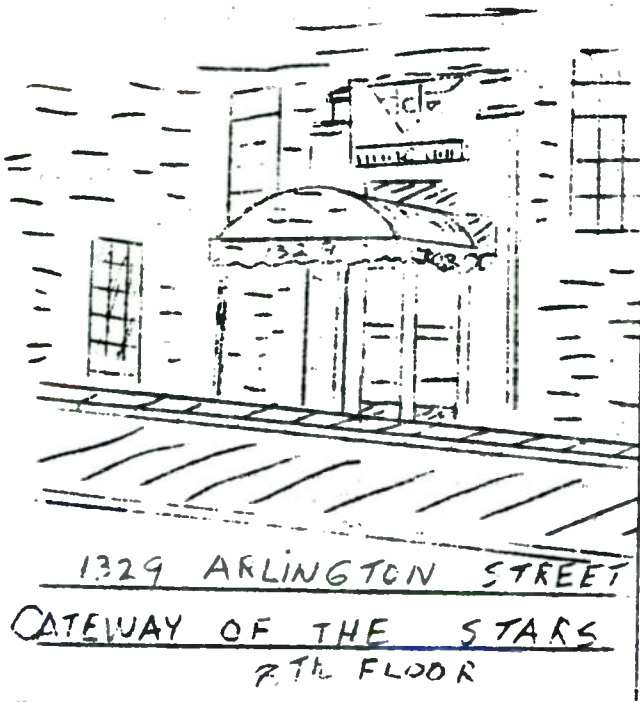
10:45 A.M.....Weather and business reports
1:30P.M.....Business reports
2:00P.M.....Fred Smith program for the shut-in's

Walter Esberger directs the Formica Military Band from the Madamo Berta Gardini singer conservatory of music. I heard his band many times from the park concerts in Cincinnati in 1933 thru 1937.

In a few moments we go strolling down memory lane and listen to the voice of Jack Gwyn and the 40th anniversary program of WLW. I recall Bill Augenbaugh who was an engineer with WLW and changed to being a photographer on television. Then there is Bob Booth who became the general counsel for the American Radio Relay in Washington, D.C. Engineers Charles Butler, Jack Gray, Al Swerling, Vorn Madile, and one of the finest engineers, Jim Rockwell

When I am talking about the beginnings of radio in the Cincinnati area it is difficult to stay on the subject of just one station. Everybody was an experimenter and built their own receivers. A radio just wasn't a radio unless it could receive I in Los Angeles. Which brings up that station's history. The founder of KFI was Al C. Anthony, an electrical engineer. He earned his money as a Packard automobile dealer. He chose the letters KFI simply because they were easy to say. Well, he went on the air with a four-tube broad board outfit which consumed about 50-watts but probably only radiated 5-watts. This was in the year of 1921, and the following year he bought a Westorn-Electric 1000-watt transmitter. He soon began to realize the value of advertising and he was his own sponsor for Packard autos. To find out how large an audience he had he offered his listeners who were over 125-miles away, a crate of oranges. Believe it or not, he got 5,000 requests! He was so amazed that he went down to a local orange packer and sent 5,000 little orange crates containing only three oranges to each listener.

Another old-timer, of course, is KDKA, Pittsburgh. This was owned by Westinghouse manufacturing company. It was Dr. Conrad with his amateur radio station 8XK that first began broadcasting from Pittsburgh. Dr. Conrad gave short broadcast and it drew considerable interest and response. Dr. Conrad became encouraged. KDKA opened for the first time with the broadcast of the Harding-Cox election returns as "Opening Night." There were a lot of receivers which had loudspeakers, surprisingly enough for those days, and those were set up at Pittsburgh's Edgewood Club and other locations around the city to broadcast the returns. They set up the transmitter at the Westinghouse plant with Dr. Conrad ready to operate the station from his home should trouble develop. They were on practically all night and KDKA has been broadcasting every day since.



Another early broadcast station was WQAM which went on the air from Florida in 1922. But it was from WLW in Cincinnati that many of the network shows originated. The so-called "Soap Operas" were an advertising product of P & G.

Over the years memories still linger and you will recall Katy Schallick, who operated the switchboard for over 25-years. Millie Birnbaum of the program department who began in 1927. Do you recall Ellis Frakes who sang over WLW in 1935? Steve Crane, who I remember when he started at wzlp in Covington. Steve later became general manager of WUBA. In Cincinnati the names of James Shouse and Bob Dunville are synonymous with WLW.

March 22 of 1962 finds WLW celebrating its 40th anniversary. Let's tune in and relive those old-time shows.

"I'm Jack Gwyn, let's forget the present for the moment. The year is 1938, you have just switched on your radio, it's Saturday evening and 7-0'clock--WLW, the high fidelity transmitter of the Crosley Corporation Cincinnati, Ohio (voice of Del King)- seven slow bongos of the automatic time-chime ---- So why not travel on to Avalon, the lyrics said... Good Evening, Good Evening, this is Del King saying welcome to Avalon Time with Red Foley and the entire company, but first, tonight we bring you that fast comedian, and by fast, we mean his sponsor's haven't caught up with him yet, Red Skelton."

Jack Gwyn: "That was the start of the actual broadcast in 1938 as Avalon Time with an up-and-coming comedian was originating from the Nation's Station. To check radio reception in those days, WLW engineers made such recordings at distant points from Cincinnati. And so, tonight, through these and other recordings, we are going to hear some wonderfully nostalgic sounds of days gone by. The occasion is the 40th anniversary of WLW radio which we are celebrating today, March 22, 1962. And now we move in memory back through the years... music... "Through the years"... 1922, 40-years ago an eventful year... old record 'The Flying Machine' // 'Come Josephine'... something to be identified with the songs, were those times... spectacular are the headlines reporting the flight of Lt. James E. Doolittle from Jacksonville Florida to San Diego, California, in 21 hours eighteen minutes... in ten hops... Abie's Irish Rose opened on Broadway and the reviewers say it will never get off the ground... a spindle-legged, paunchy youngman comes from Boston to join the New York Yankees: the name? Babe Ruth. Biggest movie hit of the year... 'Blood and Sand,' starring Rudolph Valentino... banjo music and fade for... but to those who love her, the month of March of 1922 has a special place in our hearts, for in that month, in the City of Cincinnati, was born WLW, weighing exactly 50-watts... soft violin and fade for... Powel Crosley foresaw the tremendous market for radio. He had become interested in radio a year or so earlier. at that time it was a novelty, and he called in the neighbors to hear the miracle of sounds snatched from the air by a cat's whisker, a fragment of crystal, and a few turns of wire wrapped around an oatmeal box. But more and more people began listening to the few broadcasting stations

then on the air. Powel Crosley foresaw this tremendous market for receivers, and, at his Cincinnati Precision Equipment company he began manufacturing a set that sold for twenty-dollars. By the spring of 1922 he was turning out 500 radios a day. The largest Radio Manufacturing plant in the world! He also was doing research in broadcasting, and after some experimental activity he received a government license for a 50-watt transmitter. And one fateful day in March of 1922, at the Precision Company plant, Mr. Crosley stood in a curtain draped room, like a velvet tent, and speaking into a phonograph horn, a megaphone about eight-feet long and with an opening about three-feet wide, he said "This is WLW," Then there followed a few minutes of piano music, songs by a tenor, some static, and an interruption as a train went by the building. And over loudspeakers in the City's Fountain square, people listened to the Mayor welcome this new thing called radio. The voice of WLW was crackling across the countryside with a range of about 50-miles. This was the start of untiring efforts by Mr. Crosley, and others, to make the benefits of radio available to more and more people in the rural sections of the midwest.

His efforts brought results, and in 1925, five-thousand watts from a powerful new transmitter at Harrison, Ohio, 22 miles from Cincinnati. This was the first time any transmitter was remotely controlled from a studio.

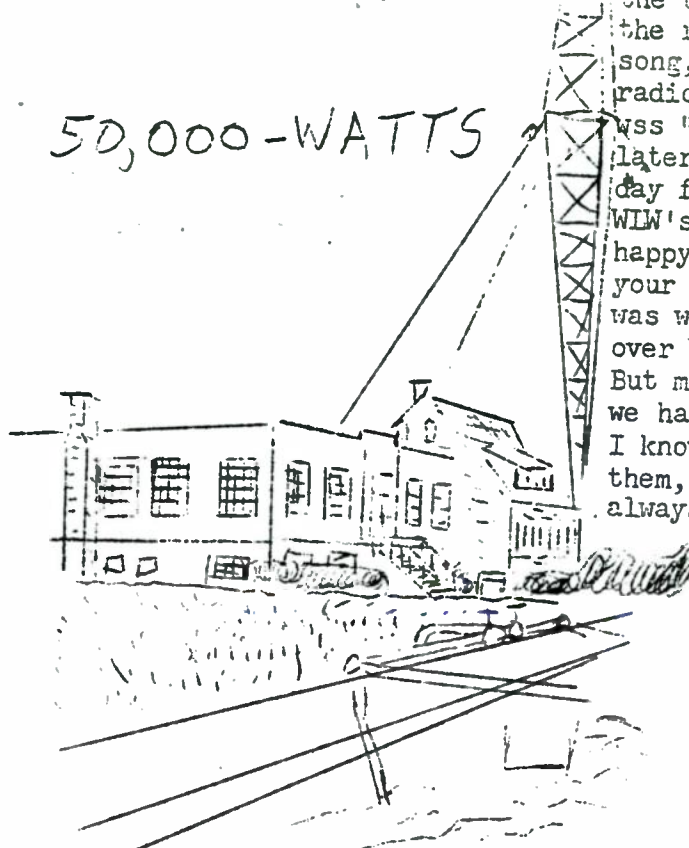
In 1927 another broadcasting milestone, WLW was granted a clear channel of 700 kilocycles. This provided interference-free reception. And then, in 1928, an exciting fulfillment of a Powel Crosley dream, as the government authorized a 50,000-watt transmitter. The voice of WLW was loud and clear over the midwest. But, what was radio like in the early days of the 20's? Well, the first studio was small and heavily draped. The microphone resembled an old phonograph horn, and the speaker had to stick his head into the horn to talk or sing. At first the talent was unpaid amateurs who were glad for a chance to try radio.

About this period Mr. Crosley said later; "Broadcasting in those days was very informal." When an amateur soprano was too awful to inflict on the listeners, we simply cut her off the air, and she was none the wiser. Long afterwards, during the 25th anniversary of WLW, in 1947, Mr. Crosley was both reminiscent about the past and prophetic about the future: "I must confess that I had no thought when we broadcast that first program that radio would grow into the great servant of the people, a medium of entertainment and information which it has become. I realize, of course, that this was an opportunity to bring right into their homes a great variety of entertainment, education, and amusement. For at that time I was primarily interested in building radio sets. In so doing I felt it my duty to provide some of the entertainment and programs without which the receivers could not function. So I regarded a broadcasting station as a necessary adjunct to our business of making radio receivers. But soon the broadcasting phase of the business became so fascinating to me that I devoted more and more time and energy to it. As time went on, commercial programs made their appearance and with the revenue from this source, radio stations everywhere were able to provide listeners with more entertainment. In like fashion, such revenues made it possible for us to advance technically and to develop a higher power that brought our programs to more remote rural regions. Now just as the Crosley Broadcasting Corporation has led in the advance in every field of radio transmission, to date, so will it lead in bringing you the advantages of television. One of the great scientific achievements you may look forward to in the near future."

Jack Gwyn.....Well soon the amateurs were replaced by paid performers and WLW was on its way to nationwide acclaim as the "Cradle of

WLW
MASON-OHIO

50,000-WATTS



the stars." One of the earliest happy-go-lucky fellow who premiered over WLW two of his original songs; "A'int Misbehavin," and "Feets too big." Fats Waller---Yeah, your feets too big...don't really hate you cause your feets too big...

In 1924 WLW listeners first heard the whalalee and peppy songs of Wendal Hall, the red-headed music maker, whose theme song, "It A'int gonna rain no more" became radios first big hit. And very popular too, was "Singing Sam" the lawn mower man, and later the Barbasol man. He wandered in one day from Richmond, Indiana. In 1947, on WLW's 25th anniversary he recalled those happy days..."Howdy Folks, yessir this is your old frined, Singing Sam. You know it was way back in the 20's that I first sang over WLW, well, a lot has happened since. But maybe some of you recall the happy times we had together on the air in those days. I know I do. I guess I will never forget them, cause, well, the songs I used to sing always start me to dreaming again. So what

do you say? Come along with me now, and let's reminesce together as I sing one of those grand old songs we all loved so well, about the time we first met over WLW, and I think you will kinda welcome this old-timer after all the blizzardy weather we've had this winter...piano intro... (that rich Indiana baritone voice... "In the Good Old Summer Time...In the good old summer time...strolling

through the shady lane with your baby mine...you hold her hand, and she holds yours...that's a very good sign...she'll be your tootsy wootsy, in the good old summer time...Well that's all for this time folks, and good luck, and God Bless you all from your old friend Singin Sam."

JACK GWYN: Now Singin-Sam had a young assistant who also had a lot of talent, and here's how this lady sounded a few years later on WLW shows... Jane Froman, the incomparable Jane Froman singing. Well, on the Nation's Station of the 20's there was a wide variety of entertainment. And how those folks loved those "Cotton Queen Minstrels," and those hilarious "End Men" taken by Hink 'n' Dink. The Hink of this partnership was none other than Elmer Hinkle who at first did the stock market reports and later the county fairs and other programs to do with live stock...music, band up and fade for...

DINK: Come on ears and elbows what's the matter? You sure don't get any faster with age, duz you?
H INK: Don't rush me now, remember, Rome wasn't built in no day.
DINK: No, and I wasn't foreman on that job either! Wat's ya got on your mind anyway? Huh?
HINK: I was just thinkin bout...
DINK: Wat wuz you thinkin wif, huh?
HINK: Never mind what's the matter...I been thinkin...bout those good old days...way back when...say twenty-thirty years ago...you never seed your sweethearts limbs...but judged her by her ears...
DINK: Boy! them wuz the times wasn't they?
HINK: Yeah, the kids was washed every saturday night, and the old man cut



9th & Elm Street
"Crosby Square"

their hair...their clothes was made from
uncle Toms pants, and they wore no underwear.

DINK: A'int that the truf?

HINK: The women powdered, but didn't paint...
smoke...play cards...or-vot. Us men
wore boots and little stiff hats and
had whiskers like a goat.

DINK: That's the truf if I ever heared it.

HINK: Not a soul ate vitamin tablets...never
thought of buying glands...the butcher
put his liver away...and charged it
with his hands.

DINK: Well you aughta know, you is in the
pork chop business, a'int ya?

HINK: We never needed no ban account...your
money earned six percent...the hired
girl got three bucks a week...and
twelve bones paid the rent...

DINK: Boy, them was the times wasn't they?...

HINK: They sure was...

DINK: yeah---voice trails off in distance...

JACK: Ha Ha...by the way, in the late 20's
this WLW minstrel show was fed to the
network as the nationally famous
"Maxwell House Showboat." WLW was one
of the first radio stations to build

its own country 'n' Western staff. "Top of the Morning" was the name of this
rollicking early morning show with "Pa and Ma McCormack" being the host, and
there were thirty performers...music up with banjo...In the twenties the
Nation's Station began building its towering career of service to agriculture.
With the scheduling of the daily RFD hours. Headman of this first farm program
was that rural philosopher, and story teller, "Boss" Johnson, who always
said: "Well folks, how's everything down on the farm tonight? I can smell the
smoke of the wood fire down in Hogan's valley, but before it warms my shins,
I promised to tell you a story. It had its beginning when the intrepid French
explorers came up the St. Lawrence River into the Great Lakes, at that time
known only to the redman. The Father-of-waters, to be known as the Mississippi
River, was a sacred stream to the indians. I want to talk to you about the
first settlement in its great water-shed. Vincennes was settled by the french...

JACK: WLW was expanding, steadily improving its' talent roster, and programming
and national radio was booming too, becoming the most influential force
in American life. Ending regionalism as it informed and entertained people
everywhere. Near the end of the twenties, America had eight million radio
families, and familiar as next door neighbors were the names; Vincent
Lopez, Paul Whiteman, The A & P Gypsies, H.V. Kaltenborn, Will Rogers,
and you really enjoyed Moran and Mack, the two black Crows, Al Jolson,
Ted Husing, A new singer, Kate Smith, the song bird of the south. A new crooner
Bing Crosby, and the NBC had the first coast-to-coast broadcast with the
Rosebowl Football Game. In October of 1929, the Vagabond Lover and his
Connecticut Yankees began the weekly Fleischman Hour...(voice of Rudy)...Hi Ho
everybody, this is Rudy Valee and company, tonight we bring our present
Hollywood visit to a close. Tomorrow will find us homeward bound from this
land of sunshine, enroute back to New Y rk. I am told that the temperature
back east is about 10-degrees above zero...California newspapers please copy...

JACK: And in that feverish autumn of 1929 millions of listeners got a much
needed laugh over the doings of Amos'n' Andy...organ playing "Perfect
Song"...fade for announcer...

AMOS: It's a job getting a furniture store started anyway...

ANDY: Well I can't do everythin...

ANDY: It's like the president of the business-mens club tole me the other day...smart as I is, it's a shame I a'int two people...

AMOS: Oh, he tole you that huh?...

ANDY: Yeah, and...

AMOS: YEAH...

KINGFISH: Well now Andy...

JACK: Actually the depression following the stock market crash was a boon to radio. People didn't have money to spend for most other entertainment, and radio was there for the listening. At the Nation's Station they hired a husky-voiced performer who was to become a national radio idol-Little Jack Little..."You took the Moonlight out of the sky..." and also contributing greatly to the fine musical programming of the early days was the late, great, musician, and composer, William Stoess (pronounced stace). and another personality of those days, pianist, composer, musical director, and who was destined to conduct for many of today's top TV performers, Bert Farber...piano and then fade for... in 1929 WLW's really big show, which went on the air over a network of eight independent stations, an hour and one-half show. Sponsored by Granite Hosiery, and featuring two announcers, a twenty-piece brass band, a thirty piece orchestra, a choir of around 15 voices and a country and western group. And so from the 20's WLW moved into the "Fabulous Thirties," the Golden Age of radio...music "Take good care of yourself" ...fade for:"During the 30's WLW was a great radio voice in America and outstanding in program quality and public service, and in broadcast power. In 1934 WLW was a great radio station and Crosley engineers accomplished the seemingly impossible. They built from the ground up, Literally, a 500,000-watt transmitter with 31-tubes costing \$1,000 each, and a tower at Mason, Ohio, soaring 831-feet in the air!

WLW began broadcasting on New Years Eve of 1934, continuing full-time broadcasting with this high-power until 1939 with regular shows and until 1943 as an experiment at night. Truly this was The Nation's Station. The 30's also marked another highlight in the history of WLW with the arrival of James D. Shouse and Robert E. Dunville. With their guidance WLW was to become the focal point of many new, and outstanding contributions to the radio industry, and an increasingly dynamic and constructive force in American Broadcasting. Meanwhile in programming October 20th, 1930, was the first broadcast of a period of smooth, restful melodies and verse, that over the years was to lull countless millions to the land of sleep.

MOON RIVER

Moon River, a lazy stream of dreams
Where vain desires forget themselves
In the loveliness of sleep
Moon River, enchanted white river
Entwined in the hair of night,
Where nothing is but sleep.

The announcer you just heard was Charles Wood, the organist Lee Irwin, the vocalist, The Devore sisters, all recorded off the air some 25-years ago. Moon River is still on the air nightly (1968) and it was the starting point for many artist who went on to national fame. Cradle os Stars, and this group came to Cincinnati from their hometown of Belfountain, Ohio, to start a long and brilliant career, "The Mills Brothers...remember?...I'm going to buy a paper doll that I can call my own...a doll that other fellows cannot steal...and when their flirty, flirty, eyes..."

JACK: On the staff of the 30's there was a singer, a member of a trio, who found that he like action parts on WLW productions better than vocalizing, and that was how Eddie Albert became, in later years, a motion-picture star and very fine actor. But when he first came to WLW he sounded like this: "I've known you so long...and loved you so much... I'll always be glad I met you..."

JACK: Familiar names in the WLW album of the 30's were those of Smilin Ed McConnerl, Jimmie Scribner and the Johnson Family, Billy Williams and the Charioteers, The Northerners, Tony Wons, with his close-to-the-mike technique; fluttered feminine hearts from coast to coast when he read poetry to them on "Tony Wons Scrapbook," a popular morning program in the 30's was Phil Bretow, Nanette Sargeant, Bill Davis, Rhiney Gau, and the new harmony team, and one of Radio's first comedy shows, "The Doodlesockers" featuring Sidney Ten Eyck and Bob Burdett. WLW started sportscaster Red Barber on the road to fame. The 30's marked the beginning of "Church by the side of the Road" oldest religious program on radio today (1962). More and more WLW produced shows were being fed to the networks, and one of them was the famous "Armco Band" under the direction of the Baton of Frank Simon. It featured friendly commercial talks by the old "Iron-Master" Frank Chapel...Theme song... "A whistler and his dog." Familiar names on the networks were the Cliquest Club Eskimos, Fred Allen, Fanny Brice as Baby Snooks, Stooplenagle and Bud, Joe Penner, Easy Aces, and remember that familiar knock on the door? and, "I hope nobody's home...I hope, I hope, I hope. Good evening Grapenuts for breakfast bring you Al Pierce...applause...Good evening all good evening everyone, and hello Harry... "Howdy Al"...what's on the menu for tonight al?...well our program tonight is inspired by several current radio features, we are calling our little jamboree the "Misinformation Quiz Box"...or if two times two are six, how many times six does it take to shingle a chicken coop? or sumpin...

JACK: There were: Orson Wells, Craft Music Hall, Bing Crosby, Aldridge Family... "coming Mother,"...Rubenoff and his magic violin...and a little fellow dressed up in a red coat with brass buttons...Johnny presents "What's My Name?"... music from Grand Canyon Suite..."Call for Philip Morris" here comes Johnny ladies and gentlemen and his red coat and brass buttons stepping out of thousands of show-windows and counters all over the country to introduce the Phillip Morris program...Call for Phillip Morris...applause...greetings everybody this is Johnny saying hello for Phillip Morris and presenting "What's My Name."

JACK: One of the most highly rated network shows was Kay Kayser and his Kollege Of Musical Knowledge...listen to the chant of the tobacco auctioneer...mumble mumble...sold to American...hold on...sold to the American Tobacco Company...remember "Sold American" means fine tobacco best...it's Luckies 2 to 1, have you tried a lucky lately? music up... "Thinking of You"...remember the trombone?...evening folks... how you all?

JACK: From the studios of the Nation's station which are now the largest and finest radio studios in the world came radio's first comedy-variety show, the "Crosley Follies." WLW pioneered in radio drama with outstanding writing and production staffs, the life of Mary Southern, radio's first daytime serial was made at WLW as were other "Soap Operas." The Mad Hatterfields, Midstream, Puddle Family, and best known of them all, Ma Perkins, starring Virginia Payne who little realized it, but 23-year old Virginia was making entertainment history. She began as Ma Perkins in about 1934. Remember?...Ma any message you want me to give Faye?...No Dear, I wrote Faye this afternoon, course you can give her my love again...OK I'll do that..."

JACK: From talented Crosley writers came Dr. Kenrads unsolved mystery, forerunner of today's whodunit...the Nation's Station actors also were casts in such locally produced shows as; True Detective, and Tales of Terror, and the court room of the first "Famous Jury Trials" was at WLW's studio..."Extra Extra, Hear Ye, Hear Ye, radio court-hall is now in session, Hear Ye, Hear Ye, radio court hall is now in session...Ladies and Gentlemen tonight we bring you another in the series of Famous Jury Trials, each week at this same hour a radio cast re-enacts a real-life-case taken from actual court history...in this series we hear the most stirring trials, not fiction, but fact..."

JACK: From coast to coast via WLW, people enjoyed "Smoke Dreams" with the dreamer and his dog, Sport...and the parade of talent continued...there were the "Ink Spots"... "I'll get by, as long as I have you..." From the WLW studios came the vlice of Romona, who married sports announcer, Al Helper, also of WLW personalities before going on to network fame..."No more money in the bank..." Charlie, Babs, and little Ryan, The Smoothies..."Down in the Meadow in the iddy biddy pool, swam three little fishies, and the mommy fishy too, swim said the moma fishy, swim if you can, and they swam and they swam right over the dam..." Jeanette Davis who sang later on the Author Godfrey program: "A room with a view...of my wonderful you..." Tommy Riggs, and his imaginary little partner, Betty Lou...

TOMMY: I skated all afternoon, for hours on end...

BETTY: Gee Whiz, you aughta get someone to teach you!

JACK: The Nation's station was big time, at one period during the 30's 22 programs a week were being fed to the network. One of the top shows featured a newcomer to radio, a fellow named Skelton, and you heard it around 1938..."Why Not Love and travel on, with Avalon...Good Evening, this is Del King saying welcome to Avalon Time, with greetings from Red Foley and the entire company, but first, tonight we bring you that fast comedian, by fast we mean that the sponsors have not caught up with yet...Red Skelton...applause..."Thank you ladies and Gentlemen...Good Evening everybody...Hello microphone..."

DEL: Hello there Skelton, you got a nice reception tonight

RED: Yes, wish you were a comedian?

DEL: Yes, don't you?

RED: I won't be bothered with you much longer, I understand television is just around the corner. Ah, TV, that's the thing, you drop a half-dollar in the slot and you get Jack Benny, Drop quarter in the slot and you get Fred Allen, drop a dollar in the slot and you get Red Skelton...and 95¢ change...applause I've been out riding in my new airplane all day...I've got a Sally Rand plane...two fans...and it takes off anywhere...applause...somebody is looking me over for a Major Bowes unit...but, I heard that Grover Whalen flew out to the San Francisco World's Fair yesterday, and a big sign over the Golden Gate said:"Main Entrance 3,230-miles east!"...applause...everything is aviation today, EVEN TIME FLYS!...

JACK: From the WLW studios came star-studded country and western shows. On Friday night was "Plantation Party..."and there's the bugle folks, calling you to Plantation Party brought to you be "Bugle" blended cigarette tobacco...I hear the banjo playing...those melodies that linger in my heart...the Brown and Williamson Tobacco Company presents the Plantation Party with the Girls of the golden west, the Duke of Paducah, the Range Riders, Jerry Berrens, the Southern Planters, Ray Parkness and his harmonica, the Plantation Choir, and those great favorites of stage, screen, and radio-Tom, Dick, and Harry. Now here's the whole gang now...

JACK: On saturday night the Pines Party, and the Boone County Jamboree. Don't you hear the fiddle playing?...music...Come along and let's make merry, down at the hisking bee. apple-jack and good-time charlie, we'll have a jamboree... don't you hear the fiddle playing? Springtime for you and me...come along with me...you stumble and we'll have some fun, by gum...down at the hisking bee... whee...applause...Howdy Folks, howdy, this is Charlie Wayne bidding welcome

to you one and all to another Big Boone County Jamboree, and big open house... Hello Charlie, Howdy Roy, and here's the Kentucky Girls, Jo and Ellen, and there's Clay Steele too, Howdy Clay...Howdy Helen, glad to see you and come on in partner, and here's ole Lazy Jum Day Folks...

CHARLIE: What was all the excitement down at the creek the other day? Hear your uncle Billy sprathandle got in some kinda trouble.

LAZY JIM: He went and got arrested for stealing some folk'es can opener.

CHARLIE: Arrested for stealing a can opener? that's no crime.

LAZY JIM: Yeah, but this one gave milk!

CHARLIE: A can opener that gave milk? What kind of an opener is that?

LAZY JIM: A nanny goat'...laughter and applause...

JACK: On a Sunday evening, in the winter time, you'd hear the winter-time concert..."The Longine Wittnaur Watch Company, in cooperation with the Nation's Station WLW takes pride in presenting another of a series of special winter-time concerts. This program is broadcast as a salute to the world's most honored watch, Longines, winner of ten world's fair Grand Prizes, 28 gold medals, and more honors for accuracy than any other timepiece. In a moment the Longine Concert orchestra will play the "Dance of the Comedians," by Smedinoff... music up for...

JACK: Remember thos wonderful lat-night-band-remotes? Henry Busse, Jan Garber, Bernie Cummins from the Lookout House, Beverly Hills, Coney Island, The Pavilion Caprice, Old Vienna. The "Stop and Go" music of Frank Daley, and his orchestra comes to you through the facilities of the Nation's Station, WLW, from the Pavilion Caprice of Hotel Netherland Plaza in Cincinnati. "Douglas Browning Speaking, and this is WLW, the Nation's station." We hate to say Good Night, but it's time to say Good Night to you, and you know friends we always enjoy these wonderful privileges accorded us by the owners and operators of WLW. It's lots of fun, and I hope you enjoyed a little bit of our idea...let's have fun every moment...Good Night... Good Luck, and God Bless you...And now a variety of music from Buddy Fisher and his orchestra. This has been presented from Old Vienna Restaurant, one of the popular dine'n' dance spots in the City Of Cincinnati, located neath the Carew Tower on the western end of Fountain Square. This presentation reached you through the facilities of the Nation's Station---WLW...

ANNOUNCER: Attention, the American Red Cross appeals to you for money. They will greatly appreciate any contribution you may care to make in order to help people affected by this terrible flood of 1937. Address your letter to the local Red Cross Chapter or in care of this station. WLW---Cincinnati...time chimes in background...

JACK: Radio moved into the 40's with the era of WLW's greatest achievements still ahead. Early in 1940 the Crosley management added a meteorologist to tis staff. WLW was the first station in the nation to have its own weatherman. In 1941 it also was the first station to operate an "Average Farm" of its own. "Everybod's Farm" at Mason, Ohio, the scene of daily broadcasts providing practical information, and sdvice, to people in the agriculture areas. DECEMBER-7th, 1941. The night of pearl Harbor a group of newsmen went on the air to discuss the grim situation. They were William Hessler, Howard Chamberlain, Peter Grant, Gregor Zemer, and Carroll Alcott. This was the beginning of the Famous "World Front" program. At Bethany, Ohio, Crosley engineers began building for the Government the country's most powerful shortwave set-up. An installation still operated by the Crosley Corporation for the Vlce of America(1962). During the war these six great transmitters beamed the American story to the totalitarian lands of enslaved people. Nightly thousands of people listened to the eleven o'clock news and a familiar voice..."Remington-Rand presents Paul Sullivan with last-minute news from the four corners of the world.

A WLW news bureau was set up in Washington under Gordon Graham and later Gil Kingsbury. When extra help was needed they called an extra newsman named David Brinkley! WLW mobilized its own staff of war correspondents including Milton Chase in the Pacific area, and James Cassidy in Europe. Cassidy was the first American to report from German soil after "D" day, June 6th 1944.

WLW mobilized to meet new problems. Paramount was the world wide need for food and so farm director, Roy Battles, headed a party of four observers on a 17,000-mile flying survey of conditions in European countries. There was a steady expansion of dynamic public-service programming. The special services department utilized the full creative talent; acting, writing, production, of the Nation's Station. Great shows such as one that helped make America great. "Builders of destiny: " Who built America? Now I ask you: who cut the forest? Plowed the hills?; who spanned the rivers and built the towns? America, the pioneer country." Tonight we honor the town of Murray, Kentucky, the seat of Calloway County, and the home of the Murray State College. Murray is a quite town, a good place and a town with a rich heritage invites you..."

There was the "13th Man series" pointing out that one American in thirteen was over 65 years old. Focusing on the problem of living in America. Powerful and thought-provoking, was "Generation on Trial." Spotlight on conservation of our natural resources. "Ladies and Gentlemen we are about to witness the 15th in a series of trials of the generation of men now living. The court room is filled with tense faces further than the eye can see. You are sitting in the court room, and YOU and I stand accused...heavy music...all persons having business before this honorable court of conservation, come forward and you shall be heard." Then: "May it please the court...if you will summarize this case Mr. prosecutor you may proceed." The prosecutor said "Thank you, your honor. Ladies and Gentlemen of the jury, each of you sitting by your radios are on this jury. You are charged with the grave responsibility of conserving our natural resources. You may not care if we conserve...etc."

Still another of the outstanding public service shows was "This Land of Ours." Tonight we tell the colorful legend of a man whose deeds made him the Paul Bunyan of the harvest fields. William Whately of Ohio. Properly our story begins in a different place, in Virginia. With Young Silas McCormack in the fall of 1831. A strange looking machine clattered out of a barnyard, followed by a hooting crowd of farmers, farm laborers, and curious negro slaves...

During the 40's the Crosley management sent the WLW stock company; actors, directors, engineers, and soundmen, to mid-western High Schools to show students how big-time programs were put on the air. In 1947 the Crosley Broadcasting Company became a part of the Aviation Corporation, called AVCO. Actually, the AVCO people bought out WLW and the manufacturing facilities. WLW is a clear-channel class 1A station. The FCC was in a quandary over the sale of this station. The question: What right had AVCO to the ownership of one of America's clear channel radio services? You will find a partial answer to this in the files of the FCC. In fact, this case became famous, and is known officially as "The Crosley Case."

Figures in national radio entertainment were Frank Sinatra, Henry Aldridge, Phil Spitalny and his all-girl orchestra, The Lone Ranger, The Quiz Kids, and national favorites were Lum and Abner: "The makers of alka-seltzer bring you Lum and Abner...organ music...as we look in on the little community today we find Abner in the "Jot em Down" library, and Lum is just entering; Hey Abner where's your poppa? I believe i've got some good news fer him...Oh, hello Lum...poppa?...oh he stayed home today...well get him down here cause I think I found a job fer him...Job? well ggod for you...good fer poppa...etc.

JACK: During those years of the 40's people looked forward to hearing from the nation's station this superb program...music..."An Evening at Crosley Square"... "An evening at Crosley Square...a friendly greeting will raise you there...etc."

In 1944 Doris Day joined the WLW staff. In 1945 two shy girls from Maysville, Kentucky, got an audition on their first broadcasting experience... The Clooney Sisters... Rosemary and Betty. In 1942 marked the arrival of a talented, creative personality, who was destined to become the Nation's stations greatest star. Ruth Lyons was not only to attain immense popularity, but she was also able to accomplish through that popularity, great public service. Her first programs over WLW included; Morning Matinee, Pettycoat Party Line, and then Ruth Lyons became the hostess on a new program which soared on the rating charts. This was the 50-50 club, so called at first because 50 women were admitted to the studio for each show. Later expanded by an additional 50 women to become the famous 50-50 club. In 1951 the Ruth Lyons 50-50 club went on television. Television, first just a cloud on the horizon of radio in the 40's and now in 1962 a real storm that was to have far-reaching affects on the old medium. When television became commercially successful around the country in the early 60's, radio staggered under the impact, sponsors deserted radio in droves. Radio's days of the big productions were over, and there were some who thought that it would soon be dead. They were dark days, but, then radio began changing its form and course. Gradually things started picking up. The Crosley management attacked the problem by expanding public service, improving broadcast quality, and improving programming. 1954 marked the installation of a complete weather station by both WLW radio, and WLW-television. This was the first such service for any individual radio station. In 1962 it employed three persons. In 1955 a RADAR weather unit was installed and this scans a circle 300-miles from Cincinnati.

In 1957 the personnel of the weather station moved into a new communications exchange building, called "Comex", at 9th and Elm Streets especially designed for fast transmission of weather and news service. Programming was revised with emphasis on melodic music and interesting and informative talks. Once again there was another engineering first with the design and construction of equipment for un-equalled high-fidelity sound transmission on WLW. Thanks to the engineer, Jim Rockwell at Mason, Ohio. WLW became the "Highest Fidelity" station, and today WLW follows its responsibility of a clear channel station serving a wide area.

We look ahead, and we fondly look back too. For 4-decades WLW has graduated hundreds of skilled performers, and technicians. Derward Kirby, Ed Byron, Jay Johnson, Lynn Clark, Bill Nimmo, Myron Hertz, Dick Noel, Jack Fulton, the Kings Jesters, Homer and Jethro, Norman Corwin, Rod Sterling, Frank Lovejoy, Andy Williams, Lucille Norman, and the lists of graduates goes on and on. So it can be said that the "Cradle of Stars" is still rocking!

Names in the year 1962 include those of Ruth Lyons, Peter Grant, Bob Braun, Bill Albert, Bob Miller, George Logan, Jack and Jean Conner, Lt. arthur Mehring, Renolds Lahr, Howard Chamberlain, Bonnie Lou, Marian Spellman, Ruby Wright, Ed Kennedy, Bill Robbins, Pete Mathews, Mill Myers, Ros Stone, Glenn Wilson, Tony Sands, Frank Pierce, and Herchel Lukey. The cradle of stars-it's a fine heritage.

In conclusion Mr. James Shouse, chairman of the board said "Those of us who have worked for many years at WLW and those of us who have worked here only a short time continue, we hope, to carry out as best we know how the original concept of which WLW began its operations 40-years ago. A means of providing a sound balance on entertainment, information, and education. We continue to recognize that WLW's license to use the clear channel frequency of 700-kilocycles represents the collective rights of many thousands of people to own and operate their own broadcast station. The late Powel Crosley jr., and his brother, Lewis, never deviated from a very fundamental premise, namely, that there was an obligation on the part of the clear channel stations to deliver the clearest possible signal to the greatest number of listeners.

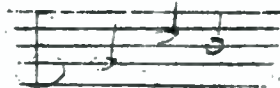
Earlier you have heard of WLW's pioneering efforts in this field. We do not doubt that if WLW had not shown the way through higher power for broadcast stations to deliver clearer reception to more people, someone else would have done so. That fact is; WLW did, and not someone else. To those of you who may recall that in the late 30's WLW was the only radio station in the world ever to operate with a power of 500,000-watts. It may be of interest to know that the FCC is now reconsidering the present power limitation of 50,000-watts in 1962. In behalf of Robert Dunville the President of the Crosley Broadcasting Corporation and me, I would like to assure you that while we realize that there may well have been many mistakes in our management they have been very honest mistakes. Neither under the late Powel Crosley's ownership, nor as we now operate as a subsidiary of the AVCO corporation, has there ever been any overt attempt to dissuade WLW from its proper course as a responsible and legitimate servant of the listeners.

Some years ago when Mr. Dunville and myself undertook the operation of WLW we did so with a full realization of the obligations to which we were committed. All I can say is, to my way of thinking, the greatest station in America, and I am quite sure that it was built upon a solid foundation. The best that the late Mr. Crosley and our now parent company, AVCO, and those of us who work here can provide.

In conclusion, may I say, that some members of the Federal Communications Commission have particularly, within the past year(1962), ardent, and within limits, persuasive in advocating that radio broadcasting and television stations editorialize. To take either an affirmative or a negative stand on issues in which the public might have the benefit of their comments, opinions, and advice. The propriety of this psychology, and the collective ability of our people to do this with complete assurance that either our negation or advocacy, as popularly sounded, has led us to restraint, and on the basis of information we can provide let our listeners make their own determination. I will, however, make an exception to this, and point out in the form of the one editorial ever knowingly permitted on our station, that there is no other country in the world wherein the people have available to them the choice of so many degrees of "waste-land" because what is one-man's waste-land, may well be a pleasing garden to his neighbor."

In February of 1961 the organization of broadcast pioneers honored WLW with its first "Mike-Award." As stated on the award; "For distinguished contributions to the art of broadcasting, and in recognition of the pioneering developments, and advancement of the careers of performing artist." The Mike-Award, a gold-plated ribbon microphone which was one actually used back in the good old days, occupies a prominent place on the WLW mantel, during this our 40th anniversary. As we begin our 41st year in broadcasting, said Jack Gwyn, "We pledge continued effort to bring you good radio programs of the quality that has distinguished WLW-Radio down through the years."

THIS IS WLW---THE NATION'S STATION



HISTORIC NOTES:

On April 2, 1953 the Government announced that the two VOA transmitters were no longer to be used. James D. Shouse became president in 1946 of Crosley Broadcasting Company. The newspapers said in November 15th of 1946 that only 1% of Cincinnati homes had FM receivers. Wilford Guenther, who was the technical supervisor, said WLWA (FM) will program from 2 p.m. till 5:30 p.m. Monday through Saturdays and from 5:30 to 11:30 daily and Sundays. WLWA(FM) first sponsor was Scott Radio Company. Programs will feature good music and news. Won't stand for any hysterical shouting of the news. Radio tower will be atop the Carew Tower with a 30-mile reception range. Estimated 1000 to 2500 receivers in this area.

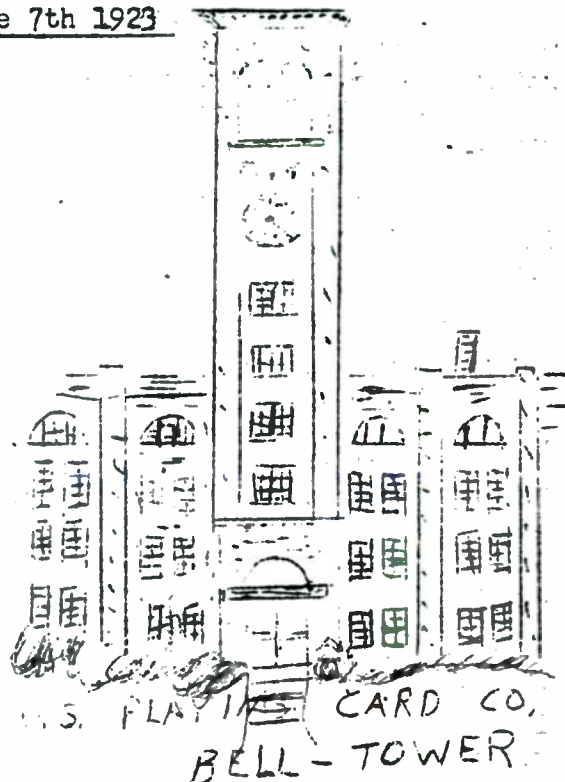
Earl Neal, who managed the WLW model farm called "Everybody's Farm" since 1937, died June 8th, 1959. There were 137 acres on this farm. Also in the news was the fact that Powel Crosley had applied for a television station as early as July 8, 1931.

In 1970 we find Mr. John Murphy at the head of WLW operations in Cincinnati. On November 11th of 1947 the newspapers said: "A television and FM tower was constructed on Mount Olympos at Warner and Chickasaw streets in Clifton." Then on November 24th of 1947 the newspapers said: "The new tower will be 65-feet square at the base, and skyward to 571-feet. The Carew Tower is 575-feet tall but the additional height afforded by the Clifton site will put the WLW-TV tower 300-feet above the Carew Tower. Studios for both TV and FM will be built here also at a cost of \$700,000 and will cost approximately \$6000 to \$7000 per month to operate."

WSAI-----B EGAN OPERATION June 7th 1923

All in all, I think I was born in a good age to live in. Even with the depression, wars, and certainly no other generation ever before in history has gone through so many drastic changes. All the way from the horse & buggy type of thinking, to computers, and a voyage to the moon!

My favorite subject is radio, and being born in the year 1916 I had first-hand knowledge from the very beginnings of radio. In 1924, when I was eight years old, my dad purchased a crystal-set radio complete with a pair of earphones. For me to hear music and the spoken word coming through the air into our living room with no wires or attachments, was nothing short of a miracle. Culture from other areas had been heard in our house through the medium of the phonograph. This brought into the house music and song, and was my first exposure to real music. I'll never forget that first record, and the phonograph machine my family bought from the old Alms & Doepke Company on the Parkway. In those days the Parkway was considered "uptown." The company had their buses to transport people from fountain square to the parkway where their store was located. This was quite an innovation in those days.



Our first record was recorded on one side only, and it was very thick. The title was "My Mother's Eyes," and we played it over and over again. We would wind it up with a handle on the side and it would play almost two whole records before it needed winding again. The needles, and they were almost that literally, were called "steel" needles and they came in packages marked Loud, medium, and soft. The loud needle was thicker than the others, so I guess it carried more sound, which incidently, was all acoustic. There were no electric amplifiers in those days. It was amazing how much sound did come from the curved speaker though, it filled the room with music.

My mother had played, by ear, for the old silent movies. We did have an upright piano in the living room so I think this was my very first musical instrument I had ever seen or heard.

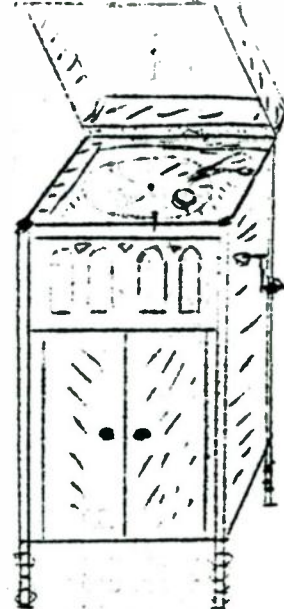
The phonograph still reigned supreme in the living room until that day my dad bought the crystal radio-set. When this entered our home with its earphones, ground wire, aerial wire strung outside the house between trees, things were never the same again.

I later on built a radio, and even studied, after obtaining many books on radio, so that I could get an FCC license. I took the exam in the first month of FCC's existence in June of 1934. Five weeks later I was issued the call of W8MFM. As it was in summer, and school vacation time, I was home and watching for the mail man every day at 11a.m. In those days we had two deliveries per day. One day in July of 1934 I saw him coming with a small envelope in his hand, and my mother told me later I was so excited I ran out to meet him, and had forgotten to put on my knickers! I had built a three-tube receiver, and a 30-watt transmitter, so that was my start.

I am trying to tell you how things are in the early twenties. It was a far different world than today in 1970.

I was born in a section of Cincinnati called Evanston. I can still recall my grandfather Joseph M. Rice, marching at the head of the fourth of July parades on Montgomery road and ending up at the Evanston ballpark. We moved from there in 1923 to Norwood. I was born on October 4th, 1916, as I said, and we lived in this outlying part of Cincinnati. I say outlying, because in those days we had horse drawn carriages, for the most part, and it was quite a journey to downtown Cincinnati. My first trip downtown was in my Aunt's electric automobile. It was called a "Columbia" and instead of a steering wheel it had a rod which you pulled to turn either direction. Below that rod was another to control the speed. It ran from self-contained batteries which were charged up at night in the garage.

Our first home in Norwood was on Shanmoor avenue. This part of Norwood was called South Norwood. My generation of half a century ago was a distinctive one to be born into. In this 50-years we have gone through since that time, there have been more changes, miracles, and social revolution than any other in the history of mankind. From horses to airplanes; from planes to rockets, and from Earth to the Moon! From firecrackers on the Fourth of July to the "A" bomb! It was President Roosevelt who said later "This generation has a date with destiny." Future historians will note the social changes wrought through the 30's and the great strides in financial security, and the un-imaginable strides in technology. If you were to talk to anyone in my age bracket you would find, invariably, that our lives are neatly divided into "before and After" the war which begun in 1941 and ended in 1945. Those persons born before my time, and those after, will never know the full impact of December 7th, 1941, meant. The bombing of Pearl Harbor by the Japanese was felt by every home in all the 48 states.



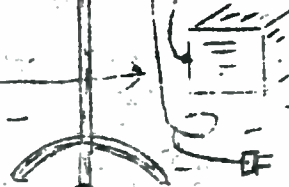
Ind-up phonograph later on earphones were added to the needle-in order that radio could be heard all around the room from the inside horn. No amplifier needed!



CARB. ON-BUTTON
MIKE



condenser
mike



battery
box

It was a giant step from the carbon mike to the condenser mike. The condenser was so sensitive that studios had to be sound proofed.

My Grandfather died in 1923. He left quite a mark on the city of Cincinnati. He was a fire commissioner of Cincinnati and one of the horse-drawn fire trucks was named the "Joseph M. Rice." As I was gathering material for this book, mostly from old newspapers of that day, I kept running into articles telling what little old Joe Rice was doing for his community. It would be a whole story in itself.

Meanwhile, on Shanmoor Avenue in Norwood, I was doing what every boy of that time was. We built things from Erector-sets, and if we were so fortunate to have an old pair of roller-skates we took one of them apart and nailed each set of two wheels to a board and made a scooter. Orange crates became the hood of an automobile with wheels from a discarded wagon. Tin-cans nailed to the front of the hood, with candles inside, became our headlights.

Inside the house we had an upright table-type telephone, and of course we had electric power. We had a coal furnace. In the kitchen the ice box, as we called it later, had not come into use. To keep food fresh we had a window box made of metal which fit on the outside of a small window over the sink. If it got too cold outside my mother simply opened the window over the sink a small amount and let some of the warm air from inside go into the box. Later we got a real icebox with four hinged doors on the front. About twice a week my mother put a square cardboard sign in the front window to inform the iceman we needed ice. The cardboard sign had four numbers on it: 10¢, 15¢, 20¢, and 25¢. These numbers were in each of the four corners of the sign. To tell the iceman how much ice you wanted you hung the sign in such a manner that only one number was readable. He would come down the street in his truck and wherever he saw these signs he would stop and go to the rear of his truck and chop the appropriate sized piece of ice, and with a pair of tongs to hold the ice, he would throw it over his shoulder, with a piece of burlap cloth on his shoulder, and carry it into the house and put it in one of the upper doors of the icebox. Oh yes, almost forgot, each ice company had its own color of sign. Green for one company, orange for another, and blue for another, etc.

One summer day I was out in front of the house and I was watching two men on a telephone pole working with the wires. They were splicing wires together and cutting off the surplus and letting it fall to the ground. I picked up these scraps, as they were just short pieces, and made a bundle of them. For insulation the wires were wrapped with different colors of paper. I didn't know this was called color-coding in those days. I had overheard one of the men say "this is a LIVE wire." Boy-like, I became curious as how come these wires were called "live."

Many people were building radios in those early days and using large batteries called "B" batteries for the plate supply. They were big, almost as big as a car battery. When they became discharged they were thrown away. I found some, and by connecting these small pieces of telephone wire across the terminals marked 45-volts, I found that the wires became very hot. In my mind this is what was meant by live-wires. I later took an old flashlight bulb and connected it to this battery and it lit up very brightly. So an electronic career was launched.

We had one of those large punch-bowls in our dining room which sat on a round mirror. Around this bowl were cut-glass cups to be used when needed. We found out that if we placed our earphones in this bowl the whole family could hear our crystal radio set. What a thrill it was to hear those sounds snatched from the air by a small piece of galena for a detector, some green-covered wire wrapped around an oatmeal box for a coil. Things were never the same again after that. Later on my dad bought an amplifier which attached to the crystal set so the sounds were louder. If memory serves me correctly, the tubes used in this amplifier were type 199, or as we used to call them "Peanut Tubes." My dad later bought a regular speaker which was shaped like a morning glory with a funnel shape flaring out at the top. It sat on the table and the cloth-covered flexible wire ran to the connections formerly used by the earphones.

WSAI began in the U.S. Playing Card plant on Beech street in Norwood. We only lived about a half a mile from it at the time. At my age I didn't know where it was at all. I did know about the "card plant" as we called it, because we got the time of the day from their bell tower. When I asked people where those bells came from they always answered "From the Card Plant." Seems they had a set of bells installed in their tower and every hour they would strike it and we could hear it all over Norwood. It also rang on the quarter, half, and three-quarter hour intervals.

I didn't know that on November of 1922 the U.S Playing Card Plant had bought a new Western-Electric transmitter and were planning on putting a radio station on the air. A Mr. John Omwake was then president of the plant at that time and other names like; Bob Cooper, Paul Greene, Helen Nugent, and many others would become familiar to me when I grew older. It was Bob Cooper whom I was to work for some ten years later, and who at the time I first spoke of was the chief engineer of WSAI.

My early schooling was at Sharpsburg grade school in Norwood, Ohio. The manual training teacher was telling a group of us one day that talking pictures would soon be the rage. About a month after that my Sunday School teacher took a group of us downtown to the Schubert Theatre to see the Biblical picture show "King of Kings." I'll never forget the first sound I ever heard from a movie screen. The picture was actually a silent one, but when they dropped the three coins on the table we could hear it somehow. I think they had a phonograph record and the movie projectionist simply played that sound at the right time.

It was in this era that WSAI began that June 7th of 1923. From a small studio on the third floor, and with a power of 500-watts they began operations at 8:05 p.m., on a frequency, or wavelength as it was called then, of 309-Meters.

WLW was then one year old and both WSAI and WLW shared the same frequency; both had the same power and both licensed by the Commerce Department. WSAI was not prepared for continuous broadcasting; sometimes it was several days between broadcasts. The first program opened with a piano solo by Miss Dorothy Waldman, followed by an address by John Omwake of the U.S. Playing Card Company. A violin solo by William Morgan Jones and an address by the Mayor of Norwood, Mr. George P. Carrel. The program concluded with a concert by the Hotel Gibson Orchestra.

FIRST WSAI PROGRAM-June 7th, 1923---8:05 p.m.

8:05 P.M.	Piano solo.....	Miss Dorothy Waldman
	Address.....	John Omwake
	Violin solo.....	William Morgan Jones
	Address.....	Mayor George P. Carrel
8:55	Arlington Time Signals.....	from WWV and NAA, Navy
9:00	Long dash at 9 o'clock	
9:01	Songs.....	Miss Florence Enneking
		Miss Francis Jones
	Address.....	Mr. Warner Savers, president
	Tenor Solo	Ball Festival Assn.
		Thomas A. Bernhardt
		Miss Marjorie Chaplain, accp.
	talk on radio broadcasting.....	Paul Greene
	piano selection.....	Miss Dorothy Waldman
	Soprano solo.....	Miss Katherine Beece
		George A. Leighton, accp.
	Trio.....	Mr. Lawson-Violin
		Mr. Watson-cello
		Mr. Dallheim-piano
	Bass Solo.....	John Dodd
		Mrs. Louise Snodgrass, accomp
	Sprrano solo.....	Mrs. Alice Gardner
	Quartet.....	Miss Helen Nugent
		Miss Alice Kessing
		Richard Bayley
		Herbert Schwartz
		accompanist Grace Raines

The Hotel Gibson Orchestra filled out the rest of the program with Mrs. Mable Otting and Robert Viscount rendering vocal selections.

The next morning, Friday June 8th, 1923, the newspapers gave the following account of the program.

"The U.S. Printing Company inaugurated its radio broadcasting station in Norwood under unusually auspicious circumstances last night. Not only was a varied and interesting program prepared which was produced without mishap, but the mechanical details of broadcasting functioned with a smoothness not always accompanying opening performances."

President John Omwake, of the Company, and his fellow officials had arranged for their families and friends to "listen in" on the opening concert, and over 200-guests assembled in the spacious recreation room, where amplifying instruments made the music and speeches clearly audible.

After listening to the early numbers of the program from this point of vantage, the guests inspected the broadcasting plant in an adjoining building, met the artist who took part in the event, and witnessed broadcasting at first hand. A luncheon added to the enjoyment.

PROGRAMS FOR OCTOBER 2, 1923 WSAI-Norwood, Ohio

8:00 PM	musical number.....	Hotel Gibson Orchestra
9:00	address.....	Dr. Frank Chandler, dean of the college of liberal arts, University of Cincinnati.
9:30 PM	Gems from "Jolly Widow".....	Hotel Gibson Orchestra.
	Violin solo-"Berceuse from Joclyn."	
	"Lady Billy" by Levy	
	"Midnight Rose"	final number

In December of 1924 the Department of Commerce granted an increase in power to 5,000-watts and ground was broken for a new transmitter for WSAI at Mason, Ohio, 20-miles from Norwood. Now that the power was so greatly increased, mail came all the way from New Zealand. In 1926 an event occurred which drastically changed American Radio Broadcasting. Up until this time, all licenses had been issued by the Department of Commerce. But, in 1926, the U.S. courts decided that the Secretary of Commerce had no jurisdiction over radio stations and in 1927 congress established the Federal Radio Commission. Rights of all broadcasting channels were revoked and new frequencies assigned, this time in kilocycles instead of meters. WSAI was assigned to 830-kilocycles. The next year this was changed again to 800-kilocycles. Helen Nugent, who later went to WKRC, was one of the members of the original sextette featured on WSAI from 1924 to 1928, and from time to time, nearly all of Cincinnati's musically prominent appeared in front of WSAI's microphones. One WSAI program featured an orchestra of eleven members, most of them from the Cincinnati Symphony Orchestra. A cellist, Mr. Watson, was the father of Robert Watson who became an engineer for WKRC and before that was also at WSAI. It was he who arranged the equipment to create the sound of "Sparky" on the John Arthur program in the late 40's.

By April 16th WSAI's power was again reduced to 500-watts and the frequency changed to 1330, in order to permit full-time operation. Six months later it was increased to 1,000-watts in the daytime and to 500-watts nighttime.

In 1927 when radio was in its infancy and more a novelty than a practical medium of home entertainment, much like TV was in its infancy, Radio Station WSAI had studios in the U.S. Playing Card Company building at Kenilworth and Beech streets in Norwood, Ohio. It was one of the few stations in the country, and was tuned-in by most all amateur radio builders of that time.

A Norwood newspaper said many years later in their 75th anniversary issue "Before radios became popular and were sold in appliance stores, parts and tubes could be purchased at radio supply stores and 10-cents stores. Most people built their own radio sets. This became a popular hobby. The chimes in the tower at the Playing Card Company became part of the recognized call signal of WSAI to these radio builders. They didn't need call letters to tell them which station they were listening to with those chimes always in the background.

During that era, the sports announcer came into being and one of the early sports broadcasts was the famous Dempsey-Tunney prize fight. Mayor Harry Baker of Norwood happened to stop in a local drugstore the night of the fight and heard a blow-by-blow account over a headphone set made by Charles Wiebold, South Norwood druggist. "Doc" Wiebold had several such sets in various stages of construction stacked atop his prescription counter. Mayor Baker thought "radio" was the most wonderful invention ever devised."

Kids of that era were able to accomplish the same effect on a much simpler scale. They merely took a walnut shell, some sealing wax, a galena or crystal on which a "cat's whisker" was used to find a sensitive spot; connected an aerial wire and headphones and presto, radio broadcasts. It was easy in Norwood since it had a radio station so close to everyone. It was more fun and a great exercise of imagination listening to radio. By contrast, TV today leaves nothing to the imagination and too, often we find it much less stimulating. Perhaps we are spoiled now adays.

For those who may remember the electric streetcars and the old number 8 which was the one to South Norwood, may also recall that it traveled over Forest Avenue and a carstop was at Kennilworth Avenue. When you dismounted at this stop you found yourself only two blocks from the Bell Tower, in fact you were in sight of it straight down the street.

I recall hearing a man over WSAI, when I was a boy, who played the Banjo. He gave you the news of the day by singing it and making it rhyme. He began by singing "I see by the papers..." and how he ever made all this up I'll never know. Then Wendell Hall, who stayed in radio and went with one of the networks later, would sing over WSAI "Yes, We have no bananas, We have no bananas today." Bob Burdett had an exercise program and it was the custom for every radio station to have one of these shows. Why? I'll never know. How this fit in the daily living in those days is beyond me, but never-the-less there it was. The piano playing in slow, measured beats, with his voice saying "up-down, that's it, you're doing great...hands on hips...etc."

I recall hearing the U.S. Marine band every Saturday afternoon with Lt. Bentler conducting. I guess everyone has heard Little Jack Little over the radio at one time or another if they did any listening thru the 20's. He was a fixture to fill inbetween programs with his piano music.

Radio was informal, programs just happened more or less spontaneously, and if a given performer didn't show up, they always used the piano to fill in until someone else could put on a show. The piano interlude, as it was called, became standard practice in those days. One of the first radio skits I heard was called "Jake & Lena." There were no news machines used by the radio stations and most news came directly from the newspapers. It wasn't until 1935 with a station up in Ohio, WSMK, that news wires were given to radio. Through the 20's I cannot think of a sponsor of a program, yet I know they were there. The programs came first and I guess we never learned to identify programs with sponsors. There was an old program called "Thompkins Corner" and all I can remember was the theme song "Chicken Reel." I do recall now when WSAI was operating from the Card Plant they did mention their "Bicycle" playing cards. Weather and stock market reports had to be given on another frequency from that used for music. That was the rule established in 1922(see program chapter).

WLW, WMH, and WSAI all took turns using the one frequency available for radio entertainment broadcasts. This was on 309-meters. This posed a real problem as you can well imagine. Sometimes they were all on the air at the same time! We'll almost the same wavelength, there was no accurate method of assuring the correct frequency so they were almost on the same for all practical purposes. To compound this problem was the fact that most of the tube type receivers were of the regenerative type and this meant that each receiver re-radiated the signal it was tuned to. If your next door neighbor was listening to his radio then his receiver would send out a signal that would interfere with yours.

The power used by the various stations varied between about 20-watts and 500-watts depending upon how many tubes they had in stock at the moment. Power to operate the transmitters was obtained at time from large banks of "B" batteries connected in series and sometime by a motor-generator setup. Generators were almost invariably used for the low voltage requirements of the tube filaments. There was no real monitoring equipment and most times just the expedient of using a light bulb to judge how much audio was applied to the transmitter was all there was. There were a few meters used but the antenna circuits were so bad that even though the transmitter meters said they should be getting out, most times they were not. The light bulb in the antenna proved to be the most efficient method. Adjusting this for maximum brilliance was the best and if the bulb got brighter and dimmer as the sound was applied to it that was all the better.

The antenna system itself was simply a horizontal wire stretched between two poles or between the building and a tree would suffice. A "cage" type was used at time and this consisted of multiple stands of wire arranged around a barrel hoop forming a circular cage of wire.

As was mentioned these stations were not on the air every night. They had the custom of shutting down on certain nights in order that local listeners could search for out of town stations and these nights were called "Silent nights." This all was a far-cry from anything resembling radio as we know it today in 1970. But people would talk about this marvel at grocery store or other public places and ask each other "Did you hear so-and-so last night?" Churches thought this was a wonderful way to reach people who never attended church itself.

When WSAI signed on they had an English announcer. He pronounced Cincinnati as Sin Sin Naughty. Listeners wrote in by the score wanting to know what city that was! It was also noticed that the radio station WTAS in Elgin, Illinois invariably pronounces Illinois as if it were Ill-O-noise, which is very noisy. Here began another battle for the pronunciation experts somewhat similar to Cincinnati's "tee" and "tuh." Interesting also to note that radio stations WLW and WMH were already on the air and as most Cincinnatians were of frugal German ancestry they raised the question "Vy do Vee Need Vree stations?"

In September of 1924 the reviewer's were saying "Our idea of a perfect program was put on by WSAI Sunday morning at 12:30 a.m. Freda Ragamuffins played with unusual verve, and proof that their efforts were recognized was given in the announcements of requests from the east-coast for numbers. Britt and Finch added to their laurels during the week by singing a song dedicated to the newly formed Cincinnati Radio Club."

A new thought has been planted in the hearts we
love so dear,
So listen folks from ev'rywhere, we want you all to hear,
About a club that started, tho' right now its in the birth,
We hope that it will grow to be the biggest club on earth
We want you to get used to being a booster for the
Cincinnati Radio Club.
If you tune in our station, send in your application

If you don't, they'll call you a "dud."

In 1924 the "pick of the week" were the Gibson Orchestra from WSAI, the Detroit News Orchestra from WWJ, and Joe Smith's orchestra from WJAX. And in September of 1924 the reviewers said "This second week in the new radio season was filled with every sort of radio entertainment. Old-Time dances, dramas, Jazz to the saturation point, music fitted for the Sabbath, and talks on every topic conceivable that would broadcast interestingly. It will be hard to lose Britt and Finch from Cincinnati, and since this is their last week before the microphones of WSAI, many fans will miss their cheerful, gloom-dispelling popular songs. If Wendall Hall has obtained popularity by his singing of "It ain't gonna rain no more," the two songsters, Britt & Finch, should be even more famed for their singing of "Pretty little Blue-eyed Sally." This was sung several times through WSAI proving in itself its popularity and appeal."

Mr. Paul Greene was the manager of WSAI in 1923 and in 1924 he gave a talk at the Gibson Hotel on the problems of running a radio station. (see, they've been there all the time..problems that is)

Radio began to change in 1927 with new government regulations and by 1928 radio assumed a new posture. On May 8th, 1928, Mr. Crosley of the Crosley Radio Corporation said "I will buy WSAI, which for the past five years has been owned and operated by the U.S. Playing Card Company." It was on May 21st at 10p.m. that Mr. Crosley took over the control of WSAI. Then ground was broken on June 25th of that year for a new building to house all new equipment for WSAI at Mason, Ohio. The tower and transmitter were to be located adjacent to WLW's tower. Fourteen weeks later the first tests of WLW running 50,000-watts was conducted also. The studios for WSAI were to be in the same building on Arlington street as WLW.

When WSAI's power was increased to 5,000-watts in December of 1924 the station found itself being heard in far-away places. Although the U.S. Playing Card station had been heard before in foreign countries, it was seldom that reports of reception of programs from 3-countries come in one day to any American station. Letters were received from Blackley, Manchester, in England, and Doneyhaden in Iceland, and from Coatridge, Scotland. One of the English listeners reported that he picked up WSAI on a 1-tube set. He gave a listing of programs he heard as proof!

In 1924 also, the newspaper stated "The new 5000-watt high power transmitter station of WSAI is now under course of construction at Mason, Ohio. Towers to be 208-feet high. It is believed the station will be on the air from there in February."

This new transmitter will place the Norwood station fully abreast of the latest developments in broadcasting. The output will be 1500-watts contrasted with WSAI's former 500-watt rating. This will bring many more listeners within range of this station and markedly help its progress to over-ride static and spark telegraph interference. At a later date the output may be raised to the full 5000-watts of which the set is capable. It was manufactured by the Western Electric Company.

If you were listening the night of December 17, 1924, which was a Wednesday, you will remember the Vincent Lopez syncopated band. This was a feature of the WSAI station for a 3-day period and that night you heard the farewell dinner concert. A violin solo was given by Robert Schick followed by a soprano solo by LaViryne Sims and a clarinet solo by Deacon (Deke) Moffitt. Ned Jackson concluded with a bass solo. This was a program worth remembering over the radio.

The year of 1928 was to see the demise of the U.S. Playing Card Company phase of old WSAI. Mr. Crosley had then purchased it.

A radio program to illustrate the versatility of Cincinnati people, and to show the musical heritage and the influence of the culture of this area, was one called "Al' Pete." They were on the air in the early 30's at 4 p.m. The "Al" of this twosome was Al Kirchner, and the Pete was Pete Mincosky. They were partners in a used auto parts business near Central Avenue and near the Mohawk area. Now Al played the piano and Pete played the violin, and there were many reports of their virtuosity.

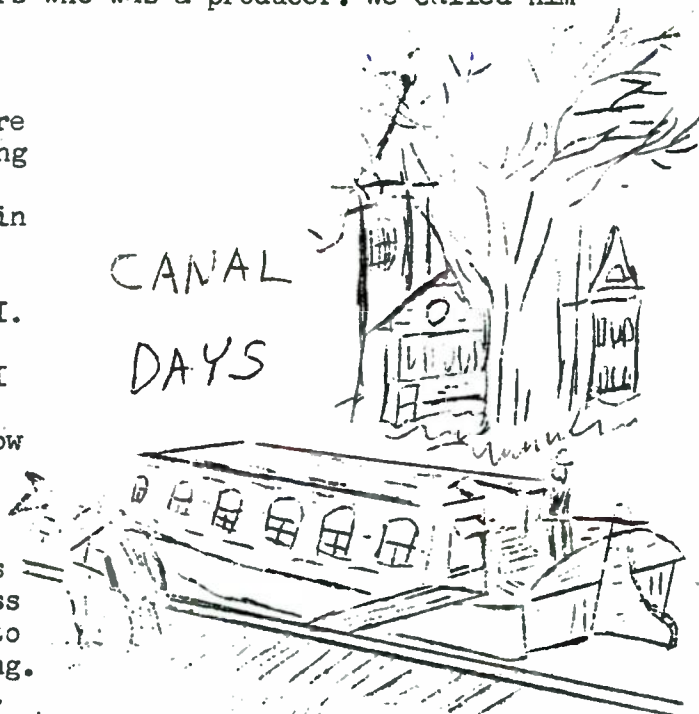
WSAI AND "CANAL DAYS" -- as told by Ferd Hengehold of
Mohawk Furniture Company

"Two of the writers for WSAI in the early 1930's were Jack Wilson and Derrick Wulf. On my program I did most of the writing myself for the Canal Days. For a period of 4 or 5 years we just had 15-minutes at 1:30p.m. of a Sunday afternoon. Then we went to a half-hour show. The show "Canal Days" was brought to you by the Mohawk Furniture Mart. Our theme was the "Blue Danube." We faded this music out for the announcer, and he said: 'Pleasant memories of the old tow-path and the over-the-rhine days'... music up and out..."Are you tired of carrying coal in a bucket? Carrying ashes? Cleaning coal soot from the walls? Stubbing your toes on cold mornings as you rush to build a fire? Be modern, convert to a HEATROLA all-gas stove...etc" Music back up and begin program. I recall the Ewald's Pet Store program over WSAI. The store was located on Vine street above 8th street. Canaries would sing with a harp background over the radio. Cecil Hale's fine voice was heard as one of the announcers on WSAI and who now teaches voice at Mt. St. Joseph on the Ohio. You could hear Louis Jon Johnen along with Charlie Lammers who was a producer. We called him the "Grand Old Man" in those days."

Then Ferd Told me: "Our program was sponsored by the Mohawk Furniture mart. We've been in the same building on Central Parkway at Mohawk street all the time. The Canal used to be in front of our building.

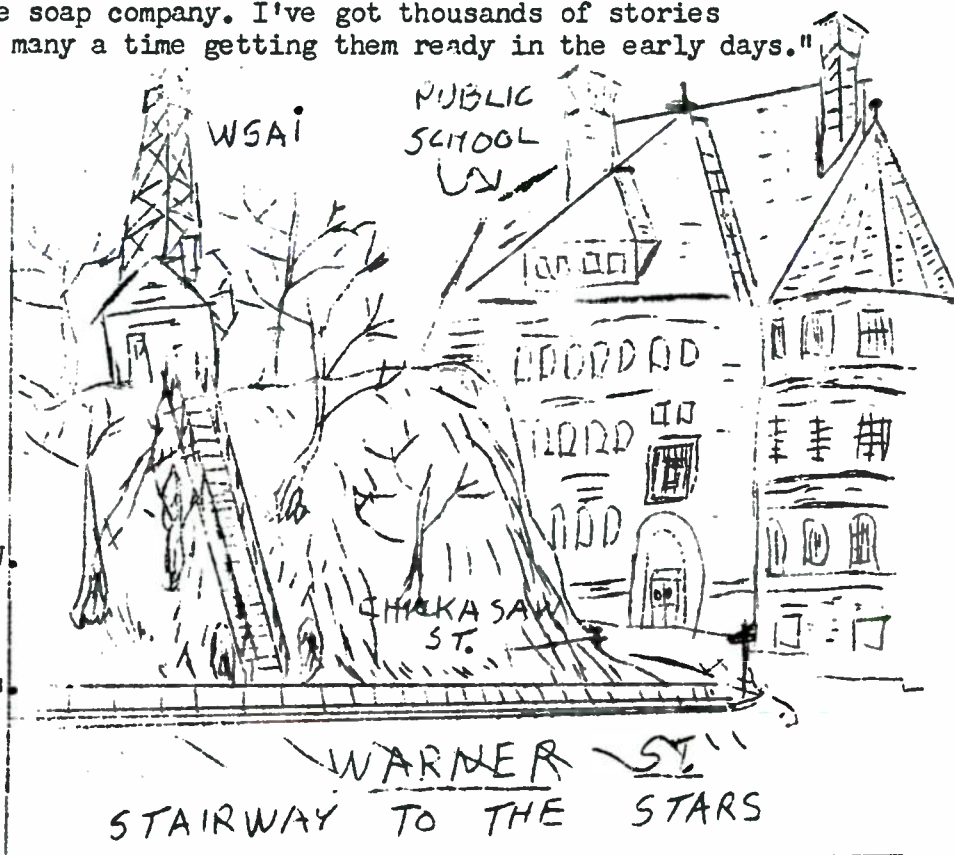
As a young fellow I went to OMI. I had gone a year or two to Hughes High School and the following year I went to OMI. They are on Walnut Street. I thought they moved a fellow just a little faster toward an engineering degree. I, being a youngster didn't know exactly which direction I was headed for. My folks were in the Tire and battery business and we were interested in moving into an electrical family of merchandising. OMI did help me tremendously in that first year. I got a very broad education. We had a teacher, who was the spanish teacher, who was from Chile. In the first day of class he taught us some spanish slang which I never shall forget. This was in 1924 and apparently there was also a radio station located in the OMI building. I think the call letters were WAAD. I had not seen it, but had heard of it. WFBE and WLW were on the air and of course WSAI out in Norwood. When Crosley bought it and hired Jim Shouse and Bob Dunville together, it was they who gave me the opportunity to put on a radio program called Canal Days when they owned WSAI. I was on for 13-years, which may be some sort of a record for longevity. My job was to dig up old stories to do with early Cincinnati. I was called the "Old Rhinelander." True stories, once a week, and by thursday afternoons at one oclock was the deadline. If I didn't have a new show each week there was an awful lot of bellyaching from the listeners. I still have thousands of these scripts. Stories like the time Tom Edison worked for Proctor & Gamble, or the time Abe Lincoln came to Cincinnati and his carriage went down Vine street, but he

CANAL
DAYS



wasn't in it. He had gone around the back way with covers pulled up around himself so he couldn't be seen because even then it was feared he might be assassinated. And of course the story of the beginning of the P & G. Mr. Procter and Mr. Gamble were courting sisters and that is the way they went into partnership. They were pushing carts over the city loading grease from the packing houses, which is why Cincinnati was called porkopolis in those days. Well, they happened to be courting sisters on a Sunday afternoon. They were vying with each other because one was making candles and the other soap. They were small operators and would hurry to get this grease together. Well on that Sunday afternoon they called on the sisters and the old German dad, the father of the girls, came down the old-fashioned staircase and he saw these two men, one sitting on one side of the parlor, and the other sitting on the other side. The father asked if they knew each other, and if they did, why don't you sit together? And they said 'Yes we know each other.' Then the dad said 'well if you know each other, why don't you sit together?' They said 'we just don't get along too well.' And the father said 'My home is my palace, if you want to go out with my daughters you will have to shake hands and make up.' So you see he was responsible for them making up and going out with their two pushcarts and dumping it all in one pile and this formed the great Procter and Gamble soap company. I've got thousands of stories like that and I sweat blood many a time getting them ready in the early days."

A re-cap of events so far. WSAI began on June 7 1923 on the third floor of the U.S. Playing Card Company in Norwood. While the Card Plant still owned it the transmitter was moved to Mason, Ohio, but the studio remained in the Card Plant. They continued this operation until May of 1928. In that year Crosley bought it outright and moved the studios to Arlington Street. This was on the same floor as WLW. In April of 1936 the transmitter was moved to Warner Street in Clifton on what is known as Mt. Olympus. This is the present site of WLW-TV. A better coverage of Cincinnati area was obtained from here. But, an interference problem



developed which made it necessary to move the transmitter to Mt. Healthy near Daly Road where it is in this year of 1970. This operation began with a directional antenna system and 5,000-watts daytime and nighttime. It was then too that the current frequency of 1360-kilocycles was assigned.

On March 3, 1936, the Cincinnati Enquirer said: "On the occasion of the dedication of the new transmitter of station WSAI wednesday March 4th, it seems only fitting that a bit of history of this, one of the pioneer broadcasting stations in Cincinnati is in order."

It was in May of 1928 that the Crosley Radio Corporation took over the operation of WSAI from the United States Playing Card Company and later bought the station outright. In November of 1928 station WLW increased their power from 5,000-watts to 50,000-watts, and later to 500,000-watts on New Years Eve of 1934 and moved to Mason, Ohio. WLW and WSAI were both housed at Mason, Ohio until WSAI moved to Warner street in 1936. Only WLW is now at Mason, Ohio.

WSAI had moved to Warner and Roh Streets in Clifton in order that it might better serve its primary area, mainly Cincinnati and its Suburbs. This was atop one of Cincinnati's highest hills and where WSAI erected a modern vertical radiator and an entirely new transmitter completely housed in its own building.

It was on May 21st of 1928 that Mr. Crosley affirmed reports that he would buy WSAI which for five-years had been operated by the U.S. Playing Card Company in Norwood. After he had taken over control ground was broken on June 25th for a building to house the new equipment for WSAI and for WLW at Mason, Ohio. Fourteen weeks later the first test of WLW running 50,000-watts was conducted. This report was made in May of 1928.

The Cincinnati Enquirer said on January 11th of 1936: "Authorization for removal of the WSAI transmitter from the present location at Mason, Ohio, to Clifton Heights was granted yesterday by FCC. New plants to be on Warner street, between Chickasaw and Wheeler streets. A single vertical radiator type antenna, three-cornered and of all steel construction which is 230-feet tall is being installed." In 1947 this same tower was sold to Arthur Eilerman of Covington, Kentucky, for his new station WZIP. Larry Snead, who now in 1971 works for station WCKY recalled going to the grade school next door to WSAI and that he could look out the window and watch the WSAI tower going up. He was thrilled by this sight and greatly influenced him in becoming an engineer later on.

The Times-Star said in 1940: "WSAI-in 1928 was acquired by Crosley and is now known as Cincinnati's Own Station, founded in 1923 by the U.S. Playing Card Company. Until 1933, when it was granted permission to use a daylight strength of 2500-watts, WSAI had been a low-powered station. In 1937 signal strength was up to 5000-watts daytime and 1000-watts nighttime and was classified as a regional outlet. In 1939 permission was granted for night-power from 1000-watts to 5000-watts for an directional antenna system. Towers to be located north of Mr. Healthy, using three towers."

In 1940 the big thing in radio was NEWS. These men brought you the news: Peter Grant, every evening at 11p.m. and again at 1:45 p.m. weekdays over WLW. At 6:15 P.M. daily except Sunday Peter Grant was on WSAI. Walter Winchell came over WLW each Sunday evening. Roger Baker and Nixon Denton were on daily except Sunday at 6:15 PM over WLW. Baker was considered an expert on sports announcing. Denton was the sports editor. Gordon Shaw had news on WLW at 7:15 AM daily except Sunday and again at 9:30AM Monday thru Friday. Dick Bray did sports/news on WSAI at 6 PM daily except Sunday. Lowell Thomas was on WLW each weekday at 6:45 PM. H.V. Kaltenborn-listeners soon will hear in 1940 on WLW this renowned authority comment on world news every Tuesday, Thursday, and Saturday evenings. Ken Peters will do news over WLW at 1:25 AM daily. Layman Cameron on news bulletins from 6 to 8 AM over WSAI. Marsha Wheeler will give the woman's news at 8:45 AM Monday through Friday over WSAI. Michael Henn on news at 8:15 AM Monday through Saturday on WLW and at 7:30 PM Monday through Friday over WSAI.

The world news was the big thing, as I said, through the later part of the 30's. The world was on the brink of a war at any moment. One Sunday morning of December 7th, 1941, a young man was on duty at WSAI to do the news and other announcer duties. He was George Palmer. This Sunday morning turned out to be the dividing line of "before and after" for a great number of persons lives. On this December morning we find WLW and WSAI studios both at 1329 Arlington street in the Crosley plant. George said "I appeared just as I did on any other Sunday morning for work at sign-on time. Things were quite and no hint of what was to follow was evident. I selected records for some of the early morning programs and got ready to sign the station on the air. The news machines were clacking away with all the previous night's happenings. Church remotes were broadcasts as usual, semi-sacred music was played, and unhurried atmosphere, and then at one-o'clock, or a few minutes thereafter, the

announcement came over the wire "Pearl Harbor" is under attack!!! From that point on nobody was the same. Confusing news, contradictory statements, and not knowing if the rest of the country would receive the same treatment, all added up to a state of readiness for the entire staff. George Palmer said: "I was the newsman on duty that Sunday morning and we sure gave a lot of bulletins that day. I can tell you. We didn't know what was going to happen and we took every precaution at the station to maintain security. We covered all the windows and locked all the doors because we didn't know if some foreign power was going to take over the American radio stations or not."

In the summer of 1944 WSAI was purchased by Marshall Field Company of Chicago. The decision of Marshall Field to sell the station later on to Mr. Storer was described as identical with that which motivated Mr. Field throughout his own tenure of ownership: "To be a good citizen to the people of Cincinnati."

On July 27, 1953, the purchase of WSAI by Sherwood R. Gordon for \$225,000 was announced. In November of that year, the WSAI studios, formerly housed at 115 East 4th street adjoining the First National Bank, were moved to their present location (1953) on the Mezzanine of the Hotel Sinton, fourth and Vine.

During the six-year ownership of WSAI by the Gordon Broadcasting Company, the station gained top position in the ratings surveys, steadily increased listener and advertising acceptance, and also provided Cincinnatians with many news and other important broadcast services. These included broadcast of the Cincinnati Redleg Games, broadcasts of City Council meetings, Cincinnati's first mobile radio news units, first editorial broadcasts, first "beeper telephone" with news reports and interviews.

In June of 1955 the FCC approved WSAI's application for new commercial FM station to operate on the same channel WSAI-FM used before it went off the air in 1953. In November of 1956 WSAI drops affiliation with the American Broadcasting Company (ABC). In making the announcement, Sherwood R. Gordon said, "I believe that radio broadcasting in the immediate future will consist of local stations providing services to meet the local need." Then in June of 1959 the purchase of WSAI by Consolidated SUN-RAY, Inc., of Philadelphia, which also operates radio stations WPEN, Philadelphia and WALT, Tampa, Florida. Purchase price for WSAI was \$1.7 million, reportedly the highest price ever paid for an independent radio station outside of the New York or Los Angeles areas. WSAI continued to operate under Vice President and general manager, Howard Eicher, who held that position since June, 1958. Then in April, 1961, purchase of WSAI by Jupiter Broadcasting Company, Inc. In 1962 Jupiter merged with Pacific Broadcasting Company who also owned KHON in Honolulu. Pacific bought out WQXI in Atlanta and changed their name to Southern-Pacific broadcasting company in 1968. The Storer company wanted to buy WSAI to get channel 2 television, but the freeze was on so he sold it for a reported \$225,000 as I stated several paragraphs ago. Sherwood Gordon had sold WSAI for \$1,900,000.

So in the year 1970 we find WSAI housed in its own self-contained building on the site of the old Price Hill Encline. Remnants of this incline are still visible. The Price Hill House, as it was known long ago, was a famous spot for diners. It featured an orchestra and many famous persons visited it. From this location an excellent view of the entire Cincinnati area is viewed with the Ohio River winding its way through and dividing Northern Kentucky from its sister city of Cincinnati. A sketch made in 1874 shows the general terrain of one of the seven hills of Cincinnati. It was a smooth rise up Buttermilk Mountain, as it became known as in that year. Buttermilk was the strongest thing you could get to drink at the Price Hill House for the first ten-years of its existence, hence the nickname "Buttermilk Mountain." There were five inclined plane railroads in Cincinnati history, but Price Hill boasted the only double-track variety. One for passenger service and one for freight. However, existing photographs dated 1941 show only the passenger track which was condemned and shut down in 1943. The Inclines in Cincinnati played a prominent part in the development of the "Plateaus" which spread out from the top of the hills surrounding the city basin.

A flashback scene to 1926: A radio amateur who lived in Norwood in the days of its operation from the Card plant was Jack Riethe. He recalls "I was listening to Little Jack Little one evening and a train went by and vibrated the catswhisker off the galena detector and that was the end of my program." Alright, so you haven't heard about galena or the word Catswhisker? Shame on you. Early in the wireless days a man discovered that certain minerals had the property of detecting radio signals. In order to do this it was necessary to mount a piece of galena ore in a suitable holder with one surface exposed and by probing the exposed surface with a fine wire (catswhisker) you were enabled to hear sounds from the air. When you stop and think about these detectors you'll realize they were all solid-state. Minerals such as silicon, iron-pyrite, iron in a powdered state, and galena were used to receive radio signals with. They needed no power of any type to operate. Most people just left them connected, and turned on, all the time.

In 1924 WSAI broadcast the football game from James Gamble Nippert stadium at U.C. The game between Cincinnati-Wesleyan at 8 p.m. by direct wire-all the way from Norwood!

In 1928 the newspapers said "WSAI established in 1923 in the U.S. Playing Card Plant in Norwood, had flourished until 1928, and then bought by Powell Crosley. The United States Printing & Lithograph company, a subsidiary of the United States Playing Card Company is the largest Cincinnati lithographing concern. Founded in 1880 in a large multi-building plant on Robertson and Beech avenues in Norwood, Ohio, is the world's largest manufacturer of playing cards and has developed many of the advanced methods in lithography."

In 1925 a means of using radio as a national medium came into being, and the first nationwide radio advertising time had been offered to merchandisers. Instant public response brought radio speedily up as the third most important advertising medium, replacing billboards. In 1937, 12-years later, national advertising appropriations were divided as follows: 49% to newspapers, 35% to magazines, about 11% to radio, and the rest scattered among other mediums. That year the Proctor & Gamble company was probably the world's largest individual advertiser; four-million for newspapers and magazine space, and about three million for contests, premiums, and sample advertising. Other Cincinnati companies which laid out huge sums for national advertising space and radio time were the Andrew Jergens Company, The Kroger Grocery and Baking Company, United States Shoe Co., Crosley Radio corporation, and the Hudepohl and Red Top Brewing Companies.

The man who has some goods to sell,
And goes and shouts it down a well,
Is not so apt to reap the dollars,
As he who climbs a tree and hollers.

The sale of WSAI in 1928 initiated a wavelength squabble between L.B. Wilson and Crosley with L.B. Wilson winning because of the fact it was to be established in another state from Ohio. L.B. won because the new station was to be for Kentucky even though it was realized it would cover Cincinnati also.

There were only five radio stations on the Cincinnati scene until 1947. WMH/WKRC, WLW, WSAI, WCPO, WCKY were the Cincinnati stations.

Through the 30's there was a music program called "Evening Concert" on WSAI. I remember going to the 4th street studios to visit with Bob Watson one night. I had known Bob since high school days and it was his father who played the cello when WSAI first signed on in 1923. All the records for the concert were the old 78-rpm type and the time of a 12-inch record was just under 5-minutes per side. Bob could read music, and he would spin these platters back-to-back in such a way that not one note was missed. In radio parlance this is called SEQUE, or run together. You couldn't tell his show from a live broadcast, it was so well done. It was Bob also, along

with several engineers who found out they could run a phonograph at different speeds to create a new voice altogether. They created the voice of "Sparky" the character which Jon Arthur dreamed up. They built special audio oscillators to control the phono-motor within critical limits for this type of program. By recording at one speed and playing it back at another they created the illusion of an entirely new voice. To my knowledge this was the first time that anything like this was ever used on radio. Before that the personalities like Jimmy Scribner would use their own voice directly to create another personality. Jimmy, incidently, had over twenty different voice for his "Johnson Family."

Harris Rosedale had the talent program on Sunday afternoons over WSAI with a live audience in the studio. Roger Baker did the baseball games from Crosley field. In the year of 1935 WSAI schedules looked like this:

MONDAY DECEMBER 16, 1936-WSAI

6:00 PM.....Omar the Mystic
6:15 ".....Connie Gates
6:30 ".....Knot-hole club

7:15 ".....Uncle Ezra
7:30 ".....News
7:45 ".....Gould & Sheffter
8:00 ".....Music Hall
8:30 ".....Carefree Capers
9:15 ".....Fireside Hour
9:45 ".....Rheiny Gau
10:00".....Lullaby Lady

FEBRUARY 15, 1938- WSAI

5:00 PM.....Dick Tracy
5:15 ".....Terry and the Pirates
5:30 ".....H. Koegans orchestra
5:45 ".....Nixon-Denton-sports
6:30 ".....Paul Sullivan-news
6:45 ".....Beslzners orchestra
7:00 ".....Hamp orchestra
7:30 ".....Walker orchestra
7:45 ".....Gaspeires orchestra
8:00 ".....Snider orchestra
8:30 ".....Wayne King-recorded
9:00 ".....Larry Nobles orchestra-live
9:30 ".....Hollywood Mardi Gras
11:00".....Hamps orchestra -live
11:30".....Walkers orchestra -live
12:00".....Armstrong orchestra-live
12:30".....Riley's orchestra-live

When WSAI's transmitter was located on Warner street in Clifton a severe interference problem arose. This 5000-watt transmitter sitting in the midst of a heavily populated area such as Clifton created the same problems that WLW had when they were using their high power of 500,000-watts at Mason. The signal was so strong around the clifton area that metal gutter pipes and other metal objects were picking up radio energy and you could hear WSAI without a radio. This made it necessary to make the move to Mt. Healthy. After the move the signal was too weak in the downtown area of Cincinnati because Mt. Healthy was too far away. WSAI engineers designed a 50-watt booster transmitter which was located in the 700 block of Reading road overlooking downtown Cincy to bring WSAI up equal to the other Cincinnati stations. WSAI used the facilities of the RED network which became the American Broadcasting Company later on.

When WS AI operated from Warner street in 1936 the newspaper said "Tonight this new transmitter makes its debut to the radio audience. On account of its assigned frequency of 1530 kilocycles, it has a new high location and this will make for infinitely better reception. The equipment is made by Western Electric Company and will be installed by J.A. Chambers, technical director of WNW and WSAI incorporates the latest developments. It will have peak power capability of 20,000 watts. It was automatically controlled and this will alleviate breakdown of components."

Four original WSAI employees to be at work when WSAI dedicates the new transmitter at Warner and Ricks street. Lawrence Dammert, Master control engineer of WNW and WSAI, Don Becker assistant general manager, Mrs. Grace Claude Raine, vocal director, and Warner Hartman studio engineer for Crosley stations.

In 1970 there are 36 people employed by WSAI and working in the building high atop the old Price Hill Incline. The FM radio tower is situated here as is the FM transmitter with the AM transmitter at Mt. Healthy remote controlled from the studios in the same building in Price Hill. Vern Milton is the chief Engineer with Milt Heidt at the transmitter, Mike Johnson at the studio and other engineering personnel. Mr. Jack Carnegie is Manager, Jim Smith in charge of Sales, Nick Anthony is program director. In traffic and continuity departments we find Annette Downs, Louise Rainier, Rose Ward, and Katherine Holthaus who has been with WSAI since 1948. She said, when I had asked her what she thought the biggest difference was in radio today: "The biggest difference I hear is in the programming of records only, with no live shows at all. Just records after record, day-in-and-day-out."

Charles Boland is the news director and also featured on the early Sunday morning telephone program called "CONTACT." Bill Dallman is the General Manager. WSAI is presently installing a new automatic type of programming for the AM station. It not only will play all the programs, give time and weather, make station identifications, but will make a constant log of its operations. WSAI uses a slow-speed recording system whereby every word and note is recorded for future reference, if needed.

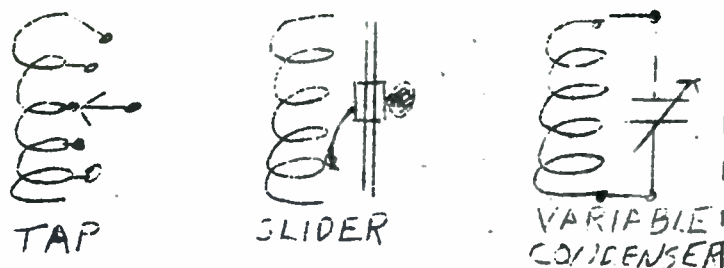
R E C E I V E R S

For the most part the early receivers used around Cincinnati by the general public were the common crystal set. Parts were mounted on a board with wood screws and the antenna and ground terminals terminated in what we called "fahnestock clips." It was customary to go to the ten-cents store and get a bread board. They sold reasonable, because bread was not sliced in those days and everyone needed a bread board. You could get a good one for around 25¢ or so. The reason for doing this and not just using any old board was that the bread boards were constructed in such a way that they would not warp. They were varnished for radio use. The coils were normally wound on "Mothers Oats" boxes because they were the largest diameter we could find. To this day I still cannot eat rolled oats because I guess I stuffed myself in the old days just to get an empty box! Most of us couldn't afford a regular variable tuning condenser for tuning so we used a cheaper, fixed type capacity, and varied the coil turns instead to obtain our tuning. You could do this several ways. By tapping the coil at regular intervals, or rigging up a slider to go across the coil turns and thus varying the tuning.

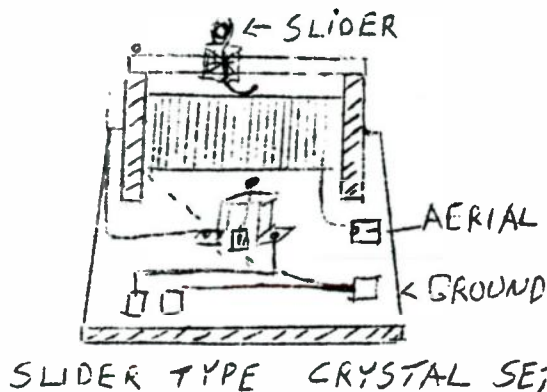
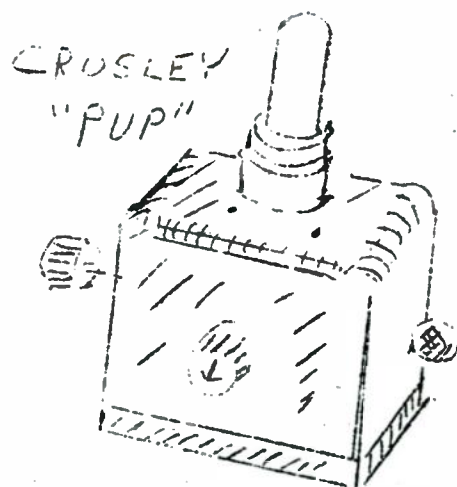
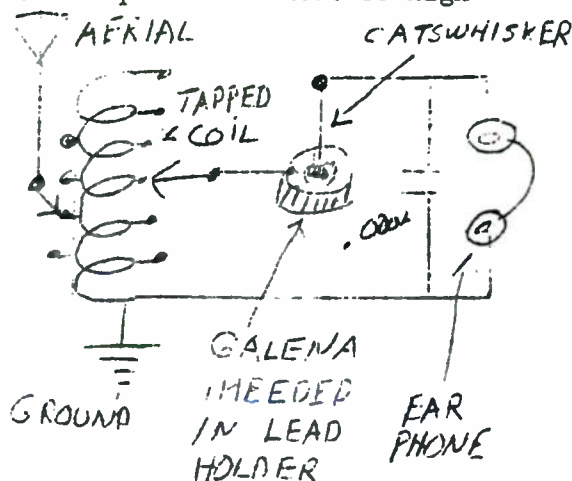
There were what was known as fixed crystal on the market, but for some reason I never could find one, You could get one with a catswhisker and a holder from the Philmore Company for 25¢. After you had connected the aerial and ground, and of course your earphones, you moved the catswhisker until you found the most sensitive spot. What a thrill that was. No matter what the sound was it couldn't have sounded better if it had been a symphony orchestra.

The word "thrill" is not a fit adjective for the ecstatic pleasure of catching an invisible substance from out the ETHER and hearing it right in your own house! FM radio came along about 1948, and the newer generation will never have the equivalent pleasure of making and using a simple receiver.

One-tube sets were made along this same line, but you had the additional problems of having to accomodate the battery for the filament circuit, and the plate or "B" battery. Most of the early tubes had filament voltages that didn't fit the voltages available from standard batteries. So most of us used a car battery, which in those days was 6-volts. We had to use a variable resistor to adjust for the voltage we needed on the particular tube we happened to own at the time. We didn't have meters, they cost too much, so we learned early how to tell by the glow of the tube's filament when we had the correct voltage. Some tubes you could adjust for an orange glow, others for a yellowish glow, others for a blue, and some others for a white glow. With the price of tubes so high you had to be careful and not ruin one.



3 WAYS TO "TUNE"



Working toward a low cost market in 1925, Crosley produced the famous Crosley "PUP" receiver. The one-tube regenerative circuit of the Crosley model 50 receiver was re-designed to fit in a 4-inch square metal box with the tube socket mounted on top. The "book" condenser was redesigned with the control knob mounted on a threaded shaft to actuate the moving plate. A small formica (Cincinnati Company) panel mounted in an opening in the back carried grid leak and binding posts for phones, ground and antenna. Battery leads were marked flexible leads. The Pup was usually operated with a type WD12 tube, 22½-volt "B" battery and a 1½-volt dry cell. The Pup sold for \$9.75 plus tube, batteries, phones and antenna. This was the first cheap, practical, regenerative receiver on the market and provided radio entertainment for many low income people. Two singers on WLW sang "We are the Crosley Pups" to promote sales. (from Jack Gray's "Bits of Wireless book")

The magnitude of any attempt to write in any one book the details of all the receivers manufactured for a period of over 50-years is beyond any comprehension. I can only write in round-numbers and hit the high spots. Even the service manuals would fill a bookshelve over forty-feet long! If you are interested in pictures of the different kinds of receivers I will mention several books on that subject.

"Bits of Wireless History" by Jack Gray.....Mason, Ohio, Church Street
 "A Pictorial Album of Wireless and Radio" published by Floyd Clymer
 222 No. Virgil Avenue
 Los Angeles, California
 90004

"A Pictorial History of Radio" by Irving Settel...Grosset & Dunlap New York

I will also avoid technical details as these are best done in publications which cater to those oriented in this direction. I only want to make you aware, and flick the switch of your memory, of the early radios. Radios that brought you the New England twang of Fred Allen...and the clipped accents of H.V. Kaltenborn...the twitter of Gracie Allen...mellow tones of "your obedient servant, Orson Welles"... (From jacket cover of Pictorial radio)... "Wanna buy a duck?... "I'se regusted"... Vass you dere, Sharlie"... That's a joke son" the pounding hooves, the "Hi-Yo" Silver! of the Lone Ranger... Jack Armstrong's "Wave the flag for Hudson High, boys"... Edward R. Murrow intoning... "This... is... London calling"... Radio, that medium that enlisted the imagination of its audience, and perhaps this is why the great radio shows of years ago often remain fresher in the memory than last week's television programs." So said Brock Brower.

So we now have a one-tube radio with the acid battery sitting on the living room floor. It didn't take much time before it was learned that even the fumes from a battery will eat through the best rug and leave a dark spot on the hardwood floor. It became the custom to put a glass dish underneath this battery. And like all batteries it would discharge. Usually we had to take it to the nearest garage to have it re-charged. After awhile the Kodel Radio Company downtown came out with their Kuprex charger and this solved that problem. The "B" battery was as large as most car batteries, but would last an awful long time. Usually people had a crystal set and would later buy just an audio amplifier made by RCA which would bring up the earphone volume for out of town stations. For more than one person at a time to hear, we used to take the earphones and put them in a large punch bowl we had, and several people could hear at one time this way.

Then the "Morning Glory" speaker came on the market. In the first ones it simply was a single earphone arranged so the sound went through a funnel shaped horn, like an ear-trumpet. This horn sat upright, and this led to its name of "Morning Glory."

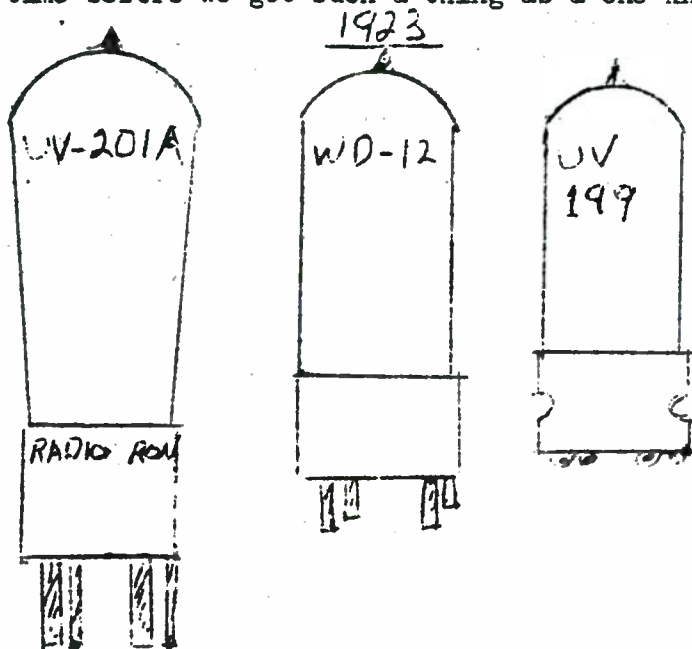
After a few stations came on the air we had to have some method of telling which station was which and where to find it again. We added a front panel and bought a variable condenser and with a dial on the front we now knew where the stations were, provided nothing drifted and upset the tuning. With the advent of the simple regenerative set this front panel had to be lined with tin-foil to prevent what was known as "body Capacity." What this meant was the proximity of your own body would de-tune the radio. By shielding it this was overcome. Later on we bought aluminum panels which were pre-cut and sold at Kresge's on fifth street in their basement. Kraus's furniture store on fifth street was another source of supplies for radios.

This whole radio looked unsightly, so the whole thing was installed in a wooden box. Then the "B" battery was put in the box, too, so all we had left on the floor was the "A" battery with a trickle charger. Never could figure out how to get rid of that. The farm radios used a battery that had the "A", "B" and "C" batteries all in one box and they used a standard plug for the radio sets.

The trouble with the "farm pack" was that the "A" battery always became discharge first and the pack was discarded even though the other batteries were still usable.

Usually the radios sat on top of a table, then someone thought of using a large cabinet to house the whole works in, and then there was room for all the batteries in the lower portion of the cabinet and no need to tie up the table with this contraption.

If you used more than one stage of RF, then it was necessary to tune several dials at one time. You almost had to be a n octopus to do it! Each stage had its own tuning dial or knob. It wasn't until almost 1930 before manufacturers learned how to make a multi-section condenser on one shaft. Some used a metal called "pot metal" which actually was old metal that had been re-melted. Trouble with it was that it got larger with age, or as we said, "it grew." The plates of the condenser would short to each other and we had to remove each section and use electricity to burn off the metal that was touching. This knocked everything out of whack. Was a long time before we got such a thing as a one-knob tuning arrangement.



"In 1919 radio was given a real boost when the Radio Corp. of America and Elmer Cunningham announced the type 200 and 201 tube made by General Electric. The type 200 was a soft detector and the 201 was a hard detector. Both were rated at five volts at one-amp for the filaments.

Radio stations with regular broadcasts were in full swing by 1921, and the receiver business was booming. A growing business was that of re-building tubes due to the tube shortage; charge was usually one or two dollars and bootleg tubes were common and sold for about \$5.00; some were very good. About this time

G.E. brought out the Radiotron transmitting tubes UV-202 at five watts, UV-203 at 50-watts and the UV-204 at 250-watts. The same tubes were also sold under the Cunningham name.

1923 saw a need for tubes that would operate on dry batteries. Westinghouse made the WD-11 and WD-12 for RCA (both 1.1 volts, .25 amps), and then G.E. made the type 199, rated at three volts at .6 amps. The next two years brought many special tubes: The DeForest DV series, the Connecticut T & T Co. double sodium vapor detector, the Electrad diode to be used in place of a crystal detector, and the Welch "peanut" tube with the control element outside the tube.

1926 brought better tubes such as the 120 and 112 series. They were hard amplifiers, and with proper bias circuits improved tone quality. The Raytheon type "BH" cold cathode rectifier for "B" battery eliminators appeared. Also the first tubes to use A.C. on the filaments: McCullough, Ardon, and Kellog type. The following year extremely practical A.C. tubes appeared: the 226 with a filament slow to cycle action and the 227 with a cathode unit. These made possible the era of all-electric sets. Screen grids became common in 1928." (from Harold S. Greenwood's book "Wireless and Radio" 1905-1928)

There were thousands of different circuits to be tried. Every magazine had a new one every month. There was no end to experiment. The first tubes were the ones mentioned above. In Cincinnati the commercial receivers found in many homes were the Crosley, Midwest, Freshman Masterpiece, Dayton made up in Dayton, Ohio, later the Majestic-Mighty Monarch of the air, then in 1928 Philco-first with the finest, and Atwater-Kent had a show room in Cincy, there was the Cleartone, Kodel,

and hundreds of basements sprouted as many different receivers, made by experimenters for all their neighbors.

There was no system for keeping records as things happen quickly on the grand American scale. The years from 1920 to 1928 saw many manufacturers in Cincinnati and elsewhere come into being. The large companies would send literature to the few supply companies and they in turn would give them to the radio-serviceman. About 1928, RCA, PHILCO, MAJESTIC, and others would compile all the diagrams for a whole year and this helped the serviceman. In this period one of the greatest publishers of radio literature, John Rider, came into being. His manuals were complete. They would appear every six-months. They were massive books, with on the average of over 1000-pages of very finely printed circuit diagrams. In volume-one, of "Riders" there appeared such names as: RUDOLPH WURLITZER, with the showroom on fourth street, STROMBERG CARLSON, SEARS ROEBUCK with their SILVETONE, MONTGOMERY WARD WITH AIRLINE, WESTERN AUTO WITH TRUETONE, RCA, G.E., WESTINGHOUSE, MAGNAVOX, SILVER MARSHALL, H.H. SCOTT, SONORA, SPARKS WITHINGTON, which became SPARTON, GRUNOW, GALVIN, which became MOTOROLA, STEINITE, STEWART WARNER, WELLS GARDNER, ZENITH, GENERAL ELECTRIC, GENERAL RADIO, PILOT, AMERICAN BOSCH AND hundreds of others.

In this same period, 1928, saw the introduction of a device called a "B" eliminator. This was electric and converted house current to the correct voltages necessary for home radios. It eliminated the storage battery and the "B" battery. In this year RCA cracked the market with an All-electric radio. This spelled the doom for most companies as they had not kept pace with developments and didn't know how to use such things as transformers, so vital to all electric radios. The use of filter capacitors, filter chokes, were foreign names to people used to having battery receivers. This also meant a whole new set of vacuum tubes had to be invented for different voltages and for AC operation. This was further compounded by the lack of standards for the frequency of house-current in the early days. In Cincinnati most of downtown was still on direct current. Some parts of the city had 25-cycle alternating current, others had 50-cycle, some had 60-cycle and surrounding counties had even as high as 144-cycles as in Warren County and several other places. This meant that a receiver designed for 60-cycle could not be used on a circuit of 25-cycles. We did find out we could use a transformer designed for 25-cycles on 60-cycles and get over twice the voltage from it, but you couldn't do this on a receiver because you would burn out all the tubes.

The rural electric project had not yet come into being and what little electric there was available was concentrated in the cities. So in order for a radio company to design one piece of equipment for the whole country it became impossible to do so for the lack of standards. Arguments still persisted over the advantages of DC over AC. Both had adherents and were insistent they were right. In this melange the listening public was confused, but somehow millions of listeners were so eager to hear radio they did find a way to do so.

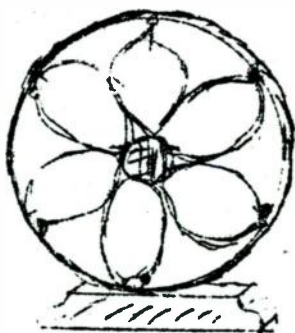
Broadcast stations had problems along this line also. For the most part they used motor-generators for low voltages and banks of large "B" batteries for their plate supplies. A new device was the mercury vapor rectifier which came out in the late 20's and this with a supply of alternating current enabled broadcasters to have more economical means for getting large voltages. The absence of power-line frequency standards meant that most phonographs had to be mechanically regulated as the motors were sensitive to power frequency variations. They used a governor similar to the one used on the wind-up victrola in the home. The name "Green Flyer" was one of the earliest companies to make motors for phonographs. Radio stations would buy these motors and make their own units. Tone arms were a problem also and each station solved its' own mechanical music headaches as best it could.

Great strides were made beginning in 1930 and continuing until Pearl Harbor, December 7th, 1941. Circuits were improved by the addition of a circuit

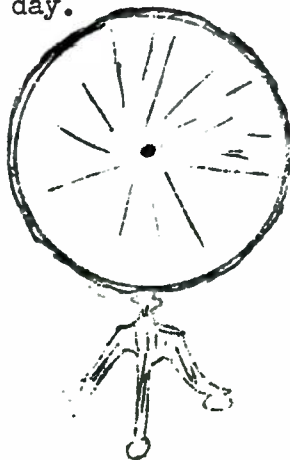
called "Automatic Volume Control," or AVC. So effective was this that you could not hear the difference between a station running 100-watts and one using 50,000-watts of power. It levelled all off to the same common denominator. Incidentally, for the first five or six years of radio the receivers never used a volume control nor had a tone control ever been dreamed of. The evolution from headphones to a speaker was a long path. At first headphones were mounted on the old phonograph tone arm and the sound came from the phonograph horn. Then heavier units were built to do the same thing. Then separate horns were attached to these units. Then a cone-type made of heavy parchment paper was driven by a vibrating armature in the center of the cone and these units were mounted on the wall. Some had pictures of ships etc., I suppose this was a method of disguising them. I've seen some as large as four-feet in diameter mounted on the wall by picture hangers from the ceiling. The moving armature type was the next developement. This was a metal assembly with a magnet mounted within it. Between the pole pieces of the magnet was a flat piece of metal free to move within limits between the two poles. This was hinged on one end and on the other was a round cemented to a paper cone. The magnet had many turns of wire in a coil, and these wires were attached to the audio amplifier of the radio. The energy supplied from the radio audio system energized the coil which affected the magnet and this varying field moved the armature and this in turn actuated the paper cone through a stiff, small, wire, with one end soldered to the moving armature and the other cemented to the center of the paper cone. Later this whole arrangement was enclosed in a metal cover and used on the early Crosley radios as well as the Atwater-Kent radios. These were the familiar round metal speakers which sat on top of the radio. The MAGNAVOX company gets the credit for the greatest innovation in speakers. They developed the moving-coil type with magnetism supplied from hundreds of turns of small wire wrapped around a metal pole piece. This was the first moving coil speaker and in principle it is the same type as used today in 1970.

The Magnavox company had brought out previously a six-volt field which gave much better volume than any other. Their units appeared which enabled the homeowner to use his phonograph horn as a loudspeaker. Broadcast stations were then only transmitting a frequency range between 200 and 2500 cycles so the demand upon a speaker was not so severe. Speakers were primarily made of pulp, wood, hard rubber, or paper-Mache'. By 1924 the wooden box and cone speakers were in use.

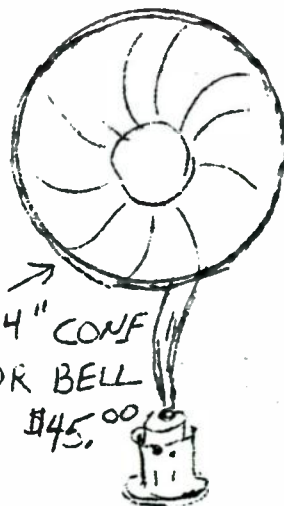
It was Western Electric who came out with their cone speakers in three sizes: 18", 24", and a 36" that hung on the wall. Prices ran from \$35.00 up to \$60.00. The Baldwin company produced a unit used in many of the speakers; the same firm had made a unit designed to attach to the sounding board of a piano. Baldwin also made their own Horn-speaker. Magnetic speakers soon appeared, and were able to handle more audio and take higher plate voltages. 1926 brought the RCA 104 dynamic with voice coil; these were tops in their day.



ATWATER-KENT
1927- \$25.00
14" DIAMETER



STROMBERG-CARLSON
24" CONE - FLOOR
MODEL-1927- \$65.00



14" CONE
OR BELL
\$45.00
MAGNAVOX
"MORNING-GLO"Y

Resistors, capacitors, and other radio components were becoming to be sophisticated by the early 30's. Metal chassis were coming into use, although had been used by RCA before 1930. Special plating was applied to the chassis to prevent rust and means to solder directly to this chassis were incorporated. Wood cabinets for radios, at first functional, were now were woodworking pieces of art. Elaborate scroll work and other cabinet decorations were being used. Crosley and Midwest both had the Robert Mitchell furniture company on West Second street make their cabinets. By mid-1935 the American radio was truly a work of art. The fidelity had approached true hi-fidelity standards and the cabinets would fit the decor of the most artistic.

In this era it became known that there was a definite relationship between the speaker, the cabinet, and the living room itself. The word "acoustics" became a common word. The Zenith radio company designed a radio that had a movable cover on the speaker and you adjusted it for the acoustics of your own house. The American radio, and the radio programs, in 1935 were the highest standard anywhere in the world.

These high standards were appreciated in Cincinnati, for after all Cincinnati was not only the Queen City, but the musical center on this continent. Outstanding events in Cincinnati included the annual May Festival, the establishment of the Cincinnati Symphony orchestra, Cincinnati Recreation orchestra, widespread teaching of music in all the schools, the manufacture of fine Baldwin Pianos at the Baldwin Company, the Rudolph Wurlitzer Company, the home of Henry Filmore who wrote hundreds of mand numbers and who had his place of business on Elm street near 6th.

Those Mo'res and institutions have led to the establishment of the Cincinnati Park Board which furnishes monies obtained through donations and contributions to perpetuate the musical heritage of Cincinnati. This is done through weekly band concerts in the various parks throughout the city. Ault, Alms, Lytle, Mt. Airy, to name a few, and from these parks come the strains of Wagner, Strauss, and all the march kings. The Cincinnati Summer opera at the Zoo pavilion is another example of the culture of a city. Cincinnati acquired this culture early in its history. All this plus the Cincinnati Conservatory of Music, and the music of other lesser-known choral and orchestral groups reverberate in the musical world of the mid-west, giving Cincinnatians opportunity to express themselves in song.

I will finish this chapter on receivers with the stating of a very old problem which existed in tuning a radio. First, it is important to understand, at least fundamentally, just what does occur when a radio dial is turned so you can hear a given station, and why it is done.

In all of nature there is a condition known as "resonance." This is better understood when it is related to things we all understand. For example, if two violin strings are stretched on the same violin, and if both are equally tight and made of the same material, it will be found that then one string is plucked the other will vibrate at the same rate, or frequency. These sympathetic vibrations are known as a condition of resonance. We've all heard the story of how a certain soprano voice on very high notes will shatter a piece of glass in a window. This is caused by this same resonance condition. The window had a vibration period of the same period as the note sung. At this point we have to make a distinction between this condition which exists through a physical medium of air and a condition where vibrations travel through an invisible substance we shall call "ether." Air is really a semi-solid material, it is composed of small molecules, and when sound vibrations are emitted it actually pushes air outward much like a piston does in a car engine.

These sound vibrations are physical and travel at sea level at approximately a speed of 1180-feet per second. The air is thicker, or has a higher density at sea level than it does at higher elevations. To further illustrate the violin

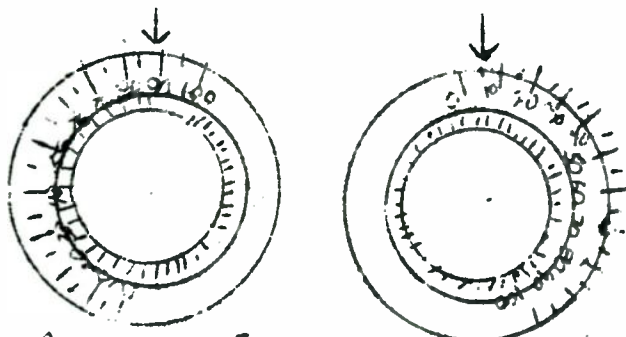
experiment we could have a continuous note from an organ played, and if a violin string is brought close to the speaker enclosure and the tension varied until this string started vibrating in synchronism with the organ note, then this is resonance.

We have been dealing with a physical property of sound up to this point. You can feel the vibrations from a speaker of a public address system, radio, television, or sound movie, but when we deal with radio waves we realize that we cannot sense, or feel, these vibrations at all. This is because they are not physical vibrations. They travel through a medium which is not understood and we had to invent a word to explain it. This word is "ether" or the invisible. Be that as it may, a parallel can still be drawn from the simple violin string. If a wave of a given frequency is emitted from the transmitter antenna of a radio station it can be caught by having what is known as a parallel resonant circuit which is tuned to that frequency. Once we have achieved this resonance then we are tuned in to this station and not to any other. In order to have this variable tuning it is necessary to either vary the coil or the condenser. A coil can only be varied, for practical purposes, by a system where individual taps are brought out to a switch and thereby different numbers of turns can be selected, or by using a slider arrangement, or a third method of varying the inductance by the use of an iron-core inserted inside the coil. Physically it is much easier to vary the tuning by varying a condenser than it is the coil and you have more selectivity. It is at this point where a great deal of misunderstanding occurs. Due to the relationship of the condenser to the coil, it does not vary the resonant frequency at a linear rate. This is manifest by a seemingly crowded condition at the upper, or high frequency end of the dial. In other words, as you tune from the low end of the dial toward the higher end you will find that for each degree of rotation of the dial there will be less and less ability to select a given station. For instance, you may find on your receiver dial that you have turned 5-divisions to tune from 550 to 600 kilocycles. This means that each dial division is equal to 10 kilocycles. But when you do the same thing to tune from 1550 to 1600 kilocycles you may find that you have only moved the dial two divisions. In this case each dial division equals 25 kilocycles so you cannot separate the stations at all. So the relationship of the dial to the tuning condenser is important.

In the beginning of radio in Cincinnati the first dials were made of bakelite, a plastic substance, by companies like the Formica Company on Spring Grove avenue. It was customary to have these dials graduated from 0 to 100 divisions. Furthermore, the 0 was the minimum capacity of the condenser, or when all the plates were out of mesh with the fixed or stator plates and this was the higher frequency condition. When the rotor plates of the variable condenser were fully meshed then this was the lower frequency portion of the broadcast band. The dial graduations usually were arranged so that the zero was on the left and as you turned the dial counter-clockwise the numbers increased. If the condenser rotated in an opposite manner, then you simply turned the knob around as in the picture

The dial divisions had no significance other than to give a reference point to find a given station on another occasion. In 1923 the instructions that came with one of these large knobs said that recently the tendency has widely been towards a knob and dial having a large diameter center knob.

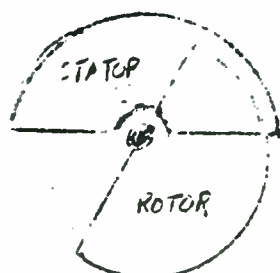
The reason is obvious, when it is remembered that the average radio broadcast listener tunes his set with his fingers at the very edge of the knob. This practice is crude and has the additional disadvantage of undue wear and smear of the engraved graduations on the dial. The new style knobs and dials have a knob almost as large as the dial itself, and this advantage is apparent.



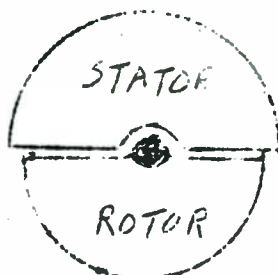
BOTH KNOBS ON SAME STATION.
KNOBS WERE USED EITHER WAY
DEPENDING ON YOUR CHOICE.

A variable condenser is composed of a fixed set of metal plates called "stator" and a movable set of plates attached to a

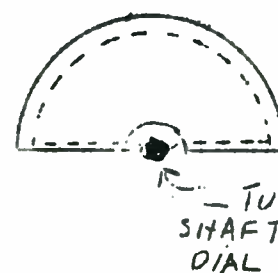
shaft, called a "rotor". The rotor plates are sandwiched in between the stator plates with adequate spacing so that they don't touch each other. The rotor moves within the stator plates and thus the capacity is varied. In other words the capacitance of a variable condenser is changed in accordance with the amount of plate area exposed to the fixed plates. Maximum capacity is a condition when the rotor plates are fully meshed, and minimum capacity when the rotor plates are out of mesh.



PARTIAL CAPACITY



MINIMUM CAP.



MAXIMUM CAP.

TUNING
SHAFT FOR
DIAL

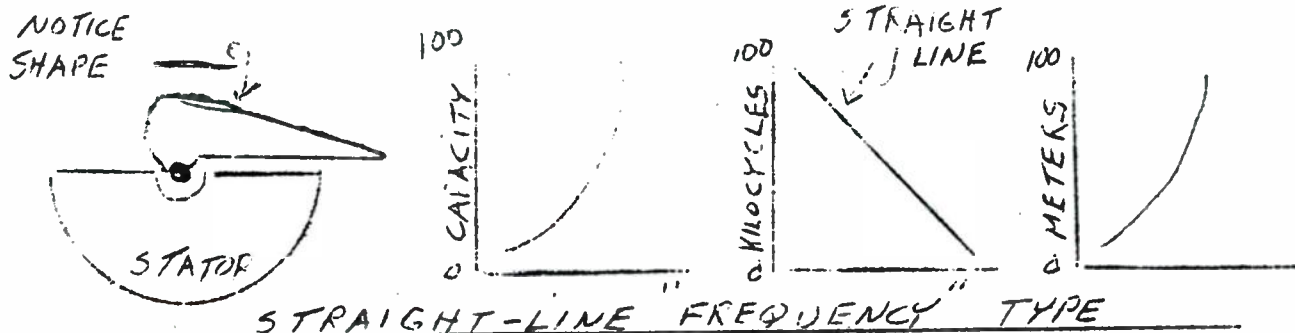
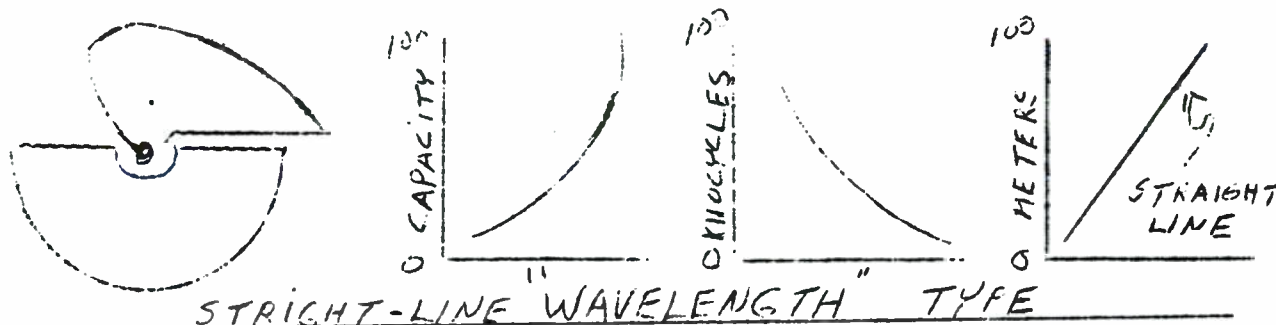
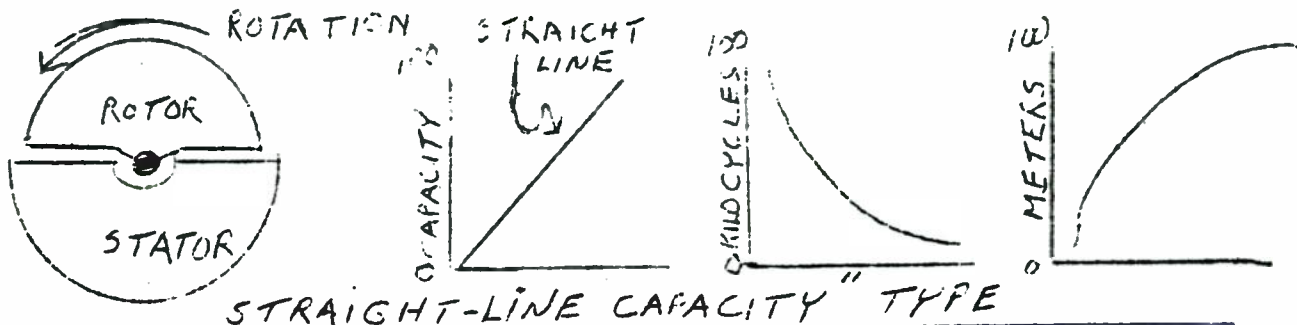
The beginning of radio receivers saw the dial as just a knob with a graduated marking system from 0 to 100. Then the "meter" dial came into use, and in some cases both the 0 to 100 marking and a second scale with the meter system printed along side. Then a complete change to the meter system and the 0 to 100 marking as a means of logging stations. Between 1930 and 1935 was an era of gradual change to the kilocycle marking system. Today (1971) instead of marking the dial in kilocycles we simply remove one zero so the 700 Kc becomes just 70. The entire broadcast band is thus extending from 55 to 160, but this actually means 550 kc to 1600 kc. It is easily understood why this is done when you consider how small the modern transistor radio is. There simply isn't room for all the numerals.

The beginning of radio saw individual knobs moving single-section tuning condensers. Then as more stages of amplification were added it became harder and harder to tune two or more knobs at the same time. A system of "ganging" began. Sometimes, two, three, and even four, single condensers were grouped so that only one shaft would tune all. This presented a mechanical problem. Some manufacturers had an arrangement whereby the group of condensers were mounted on one shaft. Others used small chains, pulleys, dial cords, and some used a flat metal belt to tune a group of condensers.

The physical shape of the rotor section of the tuning capacitor will determine the rate of change of tuning. There are three basic types of tuning condensers. First, the "straight line capacity," then "straight line wavelength," and third the "straight line frequency" type. The shape of the condenser will determine whether the high-end of the dial will be crowded, or the low-end. The perfect system would be one where there would be equal spacing between all stations. The broadcast stations are uniformly spaced, it is the deficiency of the receiver tuning apparatus which gives the illusion of being crowded on one end or the other. This "crowding" is due to the type of standard we use in marking the dial. We could mark it in frequency, wavelength, 0 to 100, or in units of capacity. Let's explore this rationale.

In the beginning of radio the ordinary "straight line capacity" type was used as most of the stations were huddled around one spot on the dial. As government regulation progressed and stations were spread out, the industry adopted the metric system for calibrating radio dials. This meant that dials were marked in wavelengths or meters instead of frequency as they are today in 1970. There is a fundamental formula which applies to sound waves, light waves, or radio waves, which states that the wavelength is equal to the velocity divided by the frequency. This is stated in mathematical form, or short-hand in this manner: $\lambda = \frac{V}{F}$, the symbols may not be familiar to all so I will spell them out. The left hand one is an

inverted letter "Y" and means "lambda" or wavelength. The letter "V" means velocity, and the letter "F" means frequency. By substituting the letters for numbers we obtain for a frequency of 700 kilocycles (WLW) the following wavelength. Wavelength = $\frac{300,000}{700} = 428.5$. The velocity is actually 186,000 miles per second, but to get it to meters we must use the metric system or 300,000,000 meters per second. The frequency of WLW is 700,000 cycles per second and this is abbreviated to kilocycles. Kilocycles means one-thousand cycles per second so that 700,000 cycles becomes 700 kilocycles. In the formula we must also knock off three zero's in the numerator, 300,000,000 becomes 300,000. This applies to any frequency. Thus in the above formula 428.5 meters is WLW.



The automobile radio had all these problems plus other mechanical ones. Car radios in the beginning were mounted in a metal box and a hole was cut in the wooden floor and this box, or tub, was bolted to it. The radio used a separate compartment which contained the "B" batteries and the "A" battery was the car battery itself. The radio had to be mounted in the rear of the car and this meant long, flexible cables were run the length of the car underneath. The whole thing was subject to the whims of weather and road conditions. The long control cables were subject to what we called "backlash." They just wouldn't stop where you wanted them to due to the flexibility of the cable. Each time you tuned, or turned the dial, it would have a tendency to overshoot your station and you tried to back it up and again this occurred. Some of the dials mounted on the steering column, some under the dash, and some fit in the ash trays. The model "A" ford had a disadvantage in this respect because the gasoline tank was directly in back of the dash board. Woe be onto he who drilled into this! Each car was different and manufacturers would only make a few models of radios to be mounted on the fire wall, and then make a whole series of different dials and cables to fit every make of car.

Besides the mounting and installation of the dials and an antenna car radios had troubles of their own. Most of the vacuum tubes were designed with voltages in mind that were not compatible with the six-volt storage battery of the car. The actual voltage of auto batteries is 6.3-volts. Most of the tubes were either five or two and one-half volt types. A whole series of new tubes came into being because of this. The series began with the types 36, 37, 38, 39/44, and type 41 audio output tube and the rectifier tube 624. This solved the filament voltage problem, but there remained the "B" voltage. Usually 150-volts was needed and a system was devised to convert 6.3-volts to a higher voltage of 150-volts or so, by using a vibrator which interrupted the 6.3-volt supply voltage and fed this into a transformer which converted this interrupted low voltage into a higher voltage. This high pulsating voltage was rectified and filtered and took the place of the "B" battery. Some of the vibrators were designed with an extra set of contacts which performed the rectifying process and a separate rectifier tube was not needed. Beginning in about 1950 transistors were used to take the place of the mechanical vibrator and another set of tubes was also designed to operate without the high voltage of 150-volts and worked from the 12-volt battery which by now all American cars were equipped. In this way both tubes and transistors could be used together in the same radio and these radios were known as Hybrid radios. They were part tube, and part transistor. Later on the whole radio went to transistors and this solved the "B" voltage problem and cut the current drain down on the auto battery considerably.

Car radio installations had enough headaches all their own. Each car was a problem in itself. To eliminate noise, get the antenna tuned up, get the radio mounted, and then the speaker, was a real mechanical problem. I learned from the start never to wear a ring or wrist watch. You might ask "Why?", and I could reply to remind you that many times a person would be installing a car radio and in making connection for the radio to the "hot" side of the battery reaching underneath the dash board to find the connection you would accidentally hit the hot side with your ring or watch and you became welded to the car! If you had any metal in your hand, and one side got connected to the hot side of the battery and the other to ground, you had a good path for several hundred amperes to flow through your ring or watch and believe me it would get white hot. To this day I will not wear either a ring or watch. There were other hazards in installing a car radio. There was the danger of accidentally drilling through a gas line or the tank itself. If you drilled another person's car to mount an antenna in the fender and you missed calculated, you left a large hole in his fender which is hard to explain away. The early car radios drew a lot of current and the early generators used no regulator, only a third brush so they could not be set for a constant current charge. The faster you went, the more they charged.

The early car antennas were either chicken wire in the cloth covered roof, or a running board type, which always got lost by hitting chuck holes in the old roads. There are so many improvements in cars and their appliances that a whole book would be needed to tell about it.

Crosley made a line of car radios called "Romeo." In the early days of Crosley the first receiver built in 1921 used a galena crystal detector and a coil with switch taps. It included a unique buzzer for adjusting the crystal. A 4½-volt "C" battery was connected to a piece of hacksaw blade, mounted on the edge of the cabinet, through a winding of enameled wire wound on a nail. The other side of the battery went to a short length of #12 copper wire which was used to scrape along the rough saw edge to produce a sparking and this caused a noise in the phones when a sensitive spot on the galena crystal was found. Without this method you never knew if your crystal was in a condition to receive a station even if you were tuned to it. These receivers were produced in the woodworking plant using the regular male help at first. One day Powell Crosley realized that he was making rheostats, tube sockets, variable condensers, tap-switches, and cabinets, so he had his engineer, Dorman Israel, wind up a tapped coil to build a one-tube receiver. They tried it out at Crosley's home and heard stations in New Jersey, Pittsburgh, Hamilton, and Cincinnati. The next day production started on the "HARKO SR.," later called the Model V. This was the first of a long line of "Crosley Fivers."

An announcement in the newspaper on Wednesday of October 27th, 1926 said "WFBE a new Cincinnati radio station, will go on the air for the first time tonight with a test program. WFBE will operate with a power of 500-watts on a frequency of 226-meters. It is believed WFBE will begin operating on a regular schedule by Saturday night. Louis Jon Johnen, former musical director of station WLW will be studio director of the Garfield station. The station to be housed in the Garfield Hotel building on Garfield place between Race and Elm streets."

This test was postponed until the next night, Thursday, October 28th, 1926. The test finally began at 7PM and ended at 8 PM. The first show was by the Jules Novette orchestra. Virginia Cooper from the Garfield Hotel was the guest soprano and accompanied by Edith Rogers on the violin. From 9 to 10 PM the Hotel orchestra performed with solists. From 11:30 till 12:30 the orchestra played dance music for the listening audience in the Cincinnati area.

On November 20th, 1926, the first regular programs were sent out over the ether waves. This was on a Saturday night and if you were listening you would have heard at 7:30 music called "The Silver Slipper Dinner Music," and at 8 PM "A bouquet of Popular piano melodies by Gertrude Casey." At ten-o'clock Katherine Gaza, pianist; Mary Drake, violinist; Jessee Albert, Tenor; Eulless Wheeler, tenor. At 10:30 PM the Silver Slipper Dance Music and at 11:15 PM Albert Jose, Baritone. The frequency was changed at this time to 232.4-meters. WFBE was listed in the Garfield Place Hotel at 112 Garfield Place in 1926. The name was changed to Park View Hotel by 1930 and a Mr. Wm. A. Haas was the manager. Another radio station was listed also in Cincinnati a year before, in 1925, as WHER owned by Scientific studios at 1745 Reading Road.

The program schedule for December 1, 1926, WFBE-232.4-meters
 7:30 PM.....Dinner music by Pat Patrick's orchestra
 8:00 "Lloyd Marvin, pianist
 9:00 "St. John Jubilee Singers
 9:30 "Pat Patrick's orchestra

So in 1926 the programs of a new station rode the airplanes. In this year WFBE was the first local station to broadcast sponsored baseball games. As all baseball games from "Redland" field in the daytime only in those days it appealed only to a daytime audience. The light system was not installed until the late 1930's. These sports programs satisfied both listener and sponsors, and this "seeing through the eyes of commentators" seemed to be the answer. The remote amplifier was placed in the front row at right field using a double-button carbon mike, as it didn't pick up the roar of the crowd, and thus the sportscaster could be heard better. There was no press box as yet for radio although the newspapers had theirs. Sid Ten Eyck who later went on to fame with WLW recalls in his high school days going out with the announcer to do the games. Another person who had memories of these remote broadcasts is Ed Fishman. It was he who later built the FM station WAEF. The Saturday-night-fights from music hall were also a regular feature of WFBE. At the baseball games it was Harry Hartman who coined the phrase "Going--going---gone" every time a home run was hit. The broadcast position changed from right field to back of home plate and later on a special box high atop the grandstand was used to house all the members of the press.

Most radio stations did not make an attempt to be commercial until almost 1929. They were content to fret the airwaves with occasional music, and for the most part it was a grand experiment only. In about 1925 shrewd businessmen saw immense possibilities in this thing called radio as a medium for advertising.

In 1922, 4-years before WFBE began, the state of Ohio was second in the nation in the number of broadcasting stations, with 34. California was first with 66, and New York only had 28.

In Cincinnati in 1919 WMH was first on the air followed by WLW on March 22 of 1922 then WSAI located in the U.S Playing Card Company plant in Norwood, Ohio, came on in 1923. There were others during this period; WAAD in the Ohio Mechanics Building at Parkway and Walnut streets; WLAZ owned by Hutton & Jones Electric Company; WIZ owned by "Harm" Fordyce on 12th street near Music Hall; WHB R on Reading Road; WIBI was licensed for Norwood, Ohio, but I believe this was a printing error in the listings and this was meant for another state, not Ohio. WILG owned by the I.L. Greenberg Co. to operate on Comargo Pike and many others were trying to build stations, but all were short-lived.

Call letters were forever getting mixed up in magazine listings. WFBE was listed in the April, 1925, issue of stations as owned by J.V. Dewalle of Seymour, Indiana on a wavelength of 226-meters. The University of Cincinnati had a station WHAG on 222-meters on November 29th 1924. WMH at Peebles corner was on a frequency of 309-meters in that year also. WRK in Hamilton, Ohio, was on the air owned by the Doron Brothers on a wavelength of 360-meters. WSAI was on 326-meters at times. On December 20 of 1924 Herbert Hoover of the Commerce Department said "Radio is no longer just fun-but becoming a necessity."

Just a year before, February of 1923, an editorial made the statement "...that the year just closed has been a memorable one for radio, not only in the U.S., but in nearly all the civilized countries. Even the most sanguine and the fondest well-wishers of radio never foresaw the tremendous interest that was displayed by the public in all matters of radio, in the year just passed. In one short year, from 1922 to 1923, the broadcasters who numbered only six in the country jumped to over 600 stations."

In March of 1922 Hugo Gernsback said: "How long will the boom last?" and he answered his own question "It is our opinion that the present condition will last for at least another year and that the radio business will be a very healthy one for years to come." I might mention that the Name of Hugo Gernsback was a prominent name through the early years of radio. Hugo Gernsback came to New York City from Luxembourg in 1904 with an idea for an improved dry battery. He started the Electro Importing Co. in 1905 and founded the Wireless League of America to crusade for the rights of early amateurs. Later he sponsored the Institute of Radio Engineers. He was the ditor of many of the early radio maga ines. Radio News, Short-Wave craft, and many others. His editorials would be as up-to-date as this morning's newspaper, even though they were written almost 50-years ago. The Electro Importing Co, or E.I. Company name is magic to the old time wireless man. Gernsback provided a most comprehensive catalogue and stock of early wireless equipment. He published early wireless magazines, Modern Electrics, Radio News, and the Electrical Experimenter. The E.I Co. catalogue was a "treatise on Wireless telegraphy" to show the young experimenter how to operate a wireless station. This catalogue was divided into three parts, 1-wireless, 2-apparatus and instruments, 3-raw materials, parts, tools and supplies. Coupons in back of the catalogue could be used, one with each \$1 order to get a wireless course in twenty lessons.

In September of 1921 the radio net income total was \$400,000 and in one year it had jumped to 2.9-million dollars. This was a clue to the boom which was beginning. A large American Radio-parts manufacturer had net profits of \$60,000 and in 1923 it had risen to \$640,000. This amounted to a per-share increase from \$1.02 in 1923 to \$5.00 in 1924.

WFB E's transmitter was on the top floor and the studio was in the basement of the Park View Hotel. You entered the Hotel from the Garfield entrance. The antenna was a long wire strung on the roof and the studio microphone was a double-button carbon job. Later on a condenser mike was purchased and this was the best type available for years to come.

One year before WFBE signed on the Radio Bureau of the Department of Commerce said in January of 1925 "We have to re-allocate some of the radio station frequencies." The reason being that KDKA, Pittsburgh, was on 309-meters as was WSAI and WLW. KDKA was shifted from 309 to 326-meters; WSAI from 326 to 309-meters; WMH from 326 to 309-meters and WREO, Lansing, Michigan, from 326 to 309-meters. It is seen that the two Cincinnati stations, WSAI and WMH, have been given the wavelength formerly used by KDKA in Pittsburgh, while KDKA now operates on the wavelength formerly used by WSAI and WMH. Geographic location was responsible for the change. Several years before that, in 1922,

the Department of Commerce licensed eleven broadcasting stations in the New Class "B". This is the first issuance of the new licenses to the superpower and celebrates the licensing of the first broadcaster a year ago(1921). All of the stations licensed under the new regulations are old ones which have been listed under limited commercial stations engaged in broadcasting for some time, They comprise large stations which have qualified with the rigid requirements of the department. All are entitled to use the special 400-meter wavelength assigned exclusively to these stations. ONLY HIGH-CLASS ENTERTAINMENT WILL BE CARRIED, MECHANICAL MUSIC IS FORBIDDEN. The stations which remain in class "A", over 500 of them, are permitted to broadcast "canned" music if they desire.

In the 100th anniversary edition of the Times-Star in April of 1940 they said "The story of WFBE and its emergence as WCPO is the story of the growth of radio as an important element in modern American life. When Harry Harman, WCPO's chief sportscaster, broke into radio it was in a fashion typical of the early days. When programs and plans could be changed in a twinkling of an eye."

In February of 1928, WFBE, forerunner of WCPO, had already established itself as outstanding in coverage of sports events. Charles "Irish" O'Conner, Times-Star sports writer, was well known to all the local fans for his breathless accounts over the air of the wrestling matches at Music Hall.

A regular announcer of WFBE was often called to give the blow-by-blow description of the boxing bouts. Specialization in radio was far from the rule back in the twenties. An announcer might take a turn at the piano at eight in the morning, sing for his supper at six, and spend the evening calling the blows at a boxing match.

One evening in 1928, however, the WFBE announcer went down for the count just as he reached music hall to broadcast the fights. Earl Fuller, then manager of the station, was faced with the problem of broadcasting a featured bout, but had no announcer to call the punches. Ingenuity was the watchword in those days. Fuller's eyes surveyed the audience and lit upon Harry Hartman. Fuller had seen Hartman at the fights often. He figured, the young clothing merchant ought to be able to tell a straight left from a right-hook to the jaw in any event.

Harry Hartman, who's business was selling clothes, and who had never seen a microphone until that night found himself on the air as a favor to a radio station manager

When the fight was over WFBE had a new sportscaster, Harry Hartman had a new job, and Cincinnati had a new personality. It was then that Harry said "I had become familiar with radio technique and was seeking new fields to conquer, so I looked into the possibility of broadcasting the games of the Cincinnati Reds."

With Glenn Davis, a young engineer, who had come to the station in 1929, Harry talked of setting up permanent equipment for the broadcast of the baseball games. In short order WFBE went on the air with baseball. It was Glenn Davis who worked out the plans for that first broadcast with Harry Hartman. In 1940 Glenn and Harry had been collaborating on the broadcasts of the Reds games for more than a decade.

Through the late twenties and early thirties all that was connected with radio was in the nature of an experiment. There were few set rules to go by when it came to entertaining the public and suggestions were always welcome.

The newspaper continued " In 1930 the young leading-man of the National players, Robert Bentley, at the Cox theatre began to wonder about this thing called radio which might one day provide real competition for both screen and stage. Robert Bentley, had some ideas of his own, about radio and showmanship. He knew the technique of stage and screen and felt that some of the technique could be utilized in radio."

With a handful of notes, scribbled in his dressing room at the Cox, he went to the studio of WFBE then in the Parkview Hotel on Garfield Place. In July of 1930 Cincinnati heard Bob Bentley in a new role. Bob was in radio, and liking it. Local listeners began to find a new realism in radio dramas over station WFBE under Bob's able direction. Radio as entertainment, was coming of age, but still it was far from being recognized for its full worth.

The Times-Star said" It was said that the well known businessmen had awakened one morning to find themselves owner of a radio station. Legend has it that in a real-estate transaction they had obtained the Parkview Hotel, and discovered in stunned surprise that the radio station went along with the hostelry."

True or untrue, the legend reflected the feeling of good Cincinnati's in those days as to the importance of radio in the life of the community. Its possibilities, while hinted, were scarcely disclosed.

Like Jack Benny, who came around to the belief that there might be something to this form of entertainment, Cincinnati newspapers and the newsmen were coming around to the belief also that there must be something of particular interest to them in the new type of reporting which had come into existence with radio.

In 1936 Scripps-Howard interests took over WFBE. They renamed it WCPO, and then began the close cooperation between the Cincinnati-Post and the radio station which condition existed until it was sold to Spokane radio in 1965.

With the sale to Spokane radio WCPO became WUBE and the studios were moved from the Keith Building across the street to Commercial street which is the one between fifth and sixth street in back of the Postoffice.

It was almost 1928 before WFBE's programming had reached a stage of regularity as in the past it was piec-meal operation as were all the early stations. In 1933 Howard Goodrich, a former musician and also a radio amateur operator, recalls going to WFBE's studio in the basement and playing in the orchestra of Deke Moffitt on a program sponsored by the Conn Instrument Company. Conn had a showroom on 7th street and each Saturday afternoon had an hour long program called "The Conn Hour" over WFBE. Deke Moffitt was a popular name around Cincinnati and today he is a music teacher at Highland High school in Kentucky. In the year of 1933 the schedule would have programs like these: "Helpful Harry," and "Star Serenaders." The "Miami Aces" along with "Philip Carlsen." The Governor of Ohio gave a talk, then "Diamond Dramas" followed by Sherdena Walker, and then "Dance Parade" and if you stayed tuned you heard "Bandbox Revue." Later in the evening you listened to the music of Billy Snider and his orchestra.

A typical schedule for WFBE for Tuesday in 1929 shows:

6:00PM.....Denver Concert
6:45 ".....Fireman's Club
7:15 ".....Spade Wells Orchestra
7:45 ".....Cliff Burns orchestra
8:00 ".....Hollywood Preview
9:15 ".....Boxing Bouts
10:00 ".....Terry's "Nighengales"
11:15 ".....Walk-A-Show...from Elmwood. This was an endurance contest; to see who could stay awake the longest.

The Cincinnati-Post said on October 1, 1936, "One year ago today WFBE radio station became WCPO." "The Voice of the Cincinnati-Post." A number of things that have been broadcasts in the past year over WCPO were the coverage of the 1936 flood, red Cross bulletins, and famous stars of stage and screen were heard over WCPO last year, among them, Walter Huston, Henry Hull, Bebe Daniels, and Eva LaGallienne.

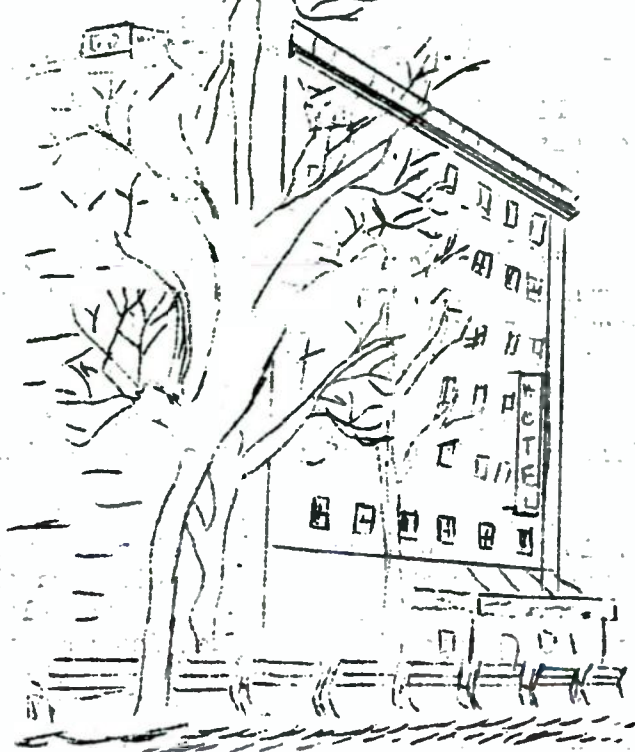
The Student Prince operatta was presented, Alfred Segal, as Cincinnati, interviewed members of the New York City light opera company which produced part of a Gilbert & Sullivan opera for the station, and another program was the German culture hour.

In the way of experimenting with programming broadcasts of the American Legion and Drum and Bugle Corps contest from Crosley Field with Frank Koester and Bob Bentley sitting at microphones. Also Rentrops Republican Convention interviews from Cleveland, Ohio.

It was remembered that on October 15th, 1935, WCPO began broadcasts of the city's history. History of Ohio Valley will also be dramatized over WCPO in another series for broadcast every Tuesday and Thursday from 7:15 to 7:30 PM. This will continue for a year and will include important happenings along the Ohio Valley beginning with the discovery of the Ohio River by LaSalle in 1669.

During the severe flood that January of 1937 WCPO became known as "The Voice of the Flood." The voices of Bob Richards, Frank Swygart, Jane Willenborg, and Paul Kennedy flashed flood news over WCPO throughout this emergency.

The studios were now in the Hotel Sinton and in the month of February, 1937, The Cincinnati-Post carried the story that the new WCPO antenna is now under construction and will shoot up to 199-feet above the daylight building on Court Street just below St. Adams making the signal stronger. This antenna was mounted on the roof with copper radials run out across the entire rooftop. The transmitter was now a brand new Western Electric type running 250-watts daytime and 100-watts nighttime. This was on what is called a "local" channel which means there are over 50 other stations on the same frequency in other cities. The studios were now at 523 Walnut Street with one studio facing the Walnut Street side. The announcer can be seen through the window as you walk by the sidewalk. I can recall seeing Tom McCarthy reading the news at 12 o'clock through this window, with his hand cupped to his ear so he could hear his own voice.



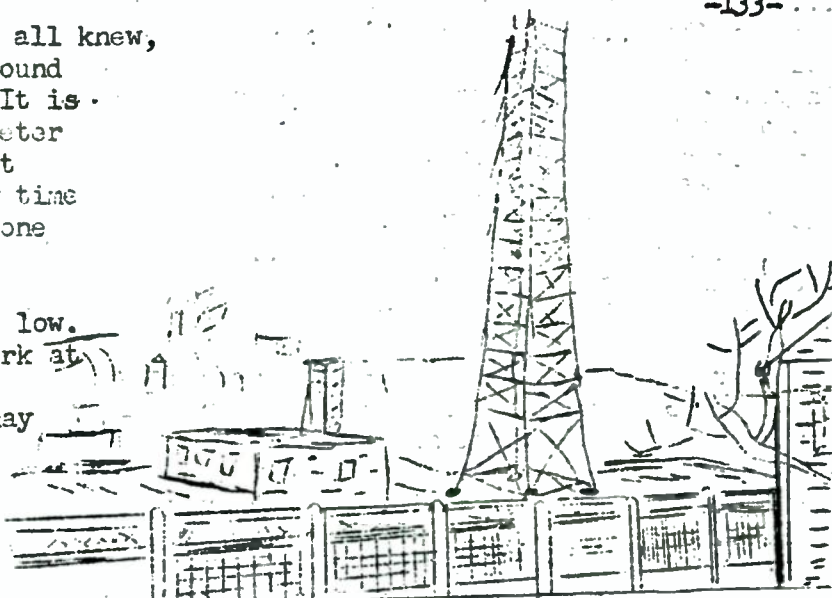
1930
PARK VIEW HOTEL
GARFIELD PLACE

John Wolking, former engineer with WCPO, recalls some of the programs including the remote broadcasts. "We had a remote from the Cotton Club down on West Sixth Street several times per week. Usually these were broadcast around nine o'clock. We used a condenser microphone for the orchestra pick-up and also for the rest of the show. The actual show, if it was given there, was a floor show, but of course for radio we had to ask them to only put on soloist and musical numbers as most of the rest of the acts would be lost given over only a sound medium of radio. In 1945 we had another program called "Music Hall" on the air one-hour each evening and on Saturday nights we had a remote pick-up from a place named "Becks" out on Alexandria Pike in Southgate, Kentucky, and we had an engineer for this show. We did have quite a few church broadcasts; Asbury Barnacle, Church of God-mountain assembly from Linn Street, Calvary Baptist church Latonia, and the Baptist church out in Lockland. I remember Bob Cooper, the sound amplifier man, had installed earphones in all the pews so the minister could be heard without blasting sound over the speakers. This single earphone had a handle on it and called it a lorgnette."

John continued "I think we did a historic broadcast that August Day of 1945 when the Japanese surrendered. Paul Nixon interviewed passing pedestrians and asked their opinion and the effect the end of the war had on them. These were recorded and probably someone still has these sounds. We did it from the flag pole on Fountain Square on the Walnut Street side just opposite the Wheel Cafe."

One of the oldest religious programs was the "Frank and Ernest" talk show on Sunday mornings. In this year of 1970 it is still on radio on another station. Some of the persons remember when I worked there myself, were Roger Wetz, chief engineer, Chris Conrad also engineer. It was Chris who built one of the first devices to automatically regulate the

Chris had figured out, and we all knew, that it was difficult to keep the sound level the same day in and day out. It is impossible to watch a volume unit meter constantly. Chris rigged up a gadget that turned an electric motor every time a heavy sound peak came over the phone line to the transmitter. This motor turned the volume control down. It worked also when the volume was too low. It was fun going about our other work at the transmitter and seeing the knob going up and down by itself. This may be the first automation in the world.



DAYLIGHT BLDG - LOOKING
DOWN FROM MT. ADAMS
WCPQ - TRANSMITTER
MT. AUBURN HILLS IN BACK

My entire work at WCPQ was at the transmitter building on the roof of the daylight bldg. on Court street below Mt. Adams. I seemed to have always caught the midnight to six A.M. shift for maintenance work. WCPQ went off the air at midnight on Saturday night. In those days we only had one transmitter and darn little spare parts. Many a time we had to rig up an old soldering-iron element to use for a resistor. Well, one night they signed off with the traditional National Anthem, and I flicked the off-switch, or as we called it, The CEASE switch and I had planned to go completely over the entire rig from one end to the other. I methodically tore the whole transmitter apart, and had all the parts lying on the floor. Very neat or so I thought. I became so absorbed in my work that I forgot to watch the clock. Before I knew it the clock said five minutes till six A.M. What will I do now? Bolts, nuts, washers, resistors, condensers, all spread out on the floor and only five minutes to get it working! If someone had a movie camera trained on me that morning they would have caught the fastest action that a film ever got. As I gazed out the window facing Mt. Adams, I could see the sun just beginning to come over the top of the hill through the haze, and even this was company for me after being alone all night on this deserted building. Well, I made it, and WCPQ signed on exactly as scheduled. I believe it was Bill Dawes who was the announcer that morning.

I'm still thinking about that morning, and how much I tried to hurry and beat the clock. Comes to mind an old silent movie I had seen called "Modern Times." It starred Harold Lloyd. The theme, or message, of the show was to indicate at how fast a pace modern life had become. Course this movie was made around 1928 or so. Well, Harold had a job in a large machine shop and things were so hectic that he couldn't meet the daily quota of work he was assigned to do on his machine lathe. Instead of taking a lunch hour, he rigged up his lunch, which was an ear of corn, to the lathe and turned the motor on and just held his mouth over the revolving ear of corn and scooped up the kernels! Never in my life did I move so fast as I did that morning at WCPQ. Would you believe in five minutes I had that transmitter back together and all the good people of Cincinnati heard the familiar voice of Bill Dawes say "Good Mornng this is WCPQ signing on at six AM." He never knew what went on at the transmitter, as he was down at the studio on Walnut street, that beautiful morning in Cincinnati. To this day whenever I hear the National Anthem played, I jump!

I suppose everyone has been alone at some time in their life. But, believe me you have never been so alone as when you are by yourself on the roof of a hotel in the midst of a great city. It is not like being alone in your own home at all. Not at all. The wind makes its own peculiar sound and whistles through the metal tower structure. The creaking and groaning of an old building...the darkness that envelopes you as you walk upon the flat floor...looking over the edge and seeing the faint glow of the

few lights that are turned on...an occasional auto headlight somewhere on a far street ...and far below in the building the sound of an elevator carrying someone to another floor...the magic stillness when a great radio station is off the air...yes, you are alone, with only memories of the sounds of dance bands that still echo in your mind from the program the night before...the strange peace that comes over you as you see a wonderful city come to life in the wee hours of the morn...the sun never looked so majestic as now...for an instant it appears as a huge orange about to roll off the edge of the earth...the telephone rings, and a voice on the other end "What time do you have?"...and you know another day is about to commence...The National Anthem...time and weather...first musical number...and off to another day... your relief engineer comes and you leave, and as you travel home you are aware that everyone else is going to work, and you are going home.

I used to like to go on remote broadcasts. The humdrum of studio programs, all sounded alike after awhile and it was pure pleasure to go out. Hunting for the phone lines to attach the equipment to, checking clocks, talking to the announcer...checking levels...getting the cue line as to when the program starts...the excitement of the crowds...this was real radio. The hockey games from the Cincinnati Gardens in later years...the baseball games from Crosley field in the press box...dog and cat shows... horse shows from the Armory building on Reading road...dance bands...country fairs... the sawdust of the ring...the problems of checking phone lines through dozens of different telephone companies to get the program through to the station...makeshift repairs to equipment to hold the show on the air...using tinfoil as shielding to stop a humming noise in the amplifier when you had nothing else to work with...the time someone accidentally put 100-volts on the phone line and the meter swung clear over against the pin so hard you could hear it...hurriedly obtaining condensers from the nearest radio shop to block the DC so I could read the meter...broken phone lines, always up in the rafters of a farm building...climbing up on a ladder and even once holding these wire together with my hands to keep the program on the air...batteries that always went dead a few minutes after a show started...falling through the ceiling of a church-in the middle of a service-as a wire broke in the attic...getting shocked touching the metal microphone and standing on damp ground...trying to make a disc recording from the speakers platform with the cutting head dancing up and down from the vibration...having a dozen mikes placed for different speakers and invariably the wrong one was turned on...the special shows from Music Hall...how exact they had to be...and someone had reversed the mike wires so they went to the wrong control pot...a solist would suddenly appear from out of nowhere and begin singing-about thirty-feet from the mike...rushing downstairs to put the mike where it should be...the foolish feeling as you knew thousands of people were watching you and thought you were part of the act...Dance band leaders who always talked to the audience they could see, and forgetting the unseen radio audience was there too...trying to hear a 70-piece band with you sitting in the middle and alongside the bass drum, and trying to tell if your earphone was picking it up or if it was only in the room where you were... people wandering through and stepping on the mike wire and tripping over it...mike stands that came apart and fell down to the floor at the slightest touch...trying to hold the sound level to an even pitch...wondering if you had the right balance between the piano and the piccolo...trying to get the show off the air on time... leaving at least 30-seconds of music so the studio engineer back at the station could fade out of it and go on with the rest of the show from there...the times you left the mike turned on for several hours while you were testing and worrying years later about all the jokes that were told with the mike turned on and not knowing if it got on the air be accident...watching the sweep second-hand of the clock...the slowness of it when you ran out of program material...yes, this was radio. The basketball remote and getting hit on the head and dragging all the gear to the floor...the broken earphone cords...the baseball games that ran into extra innings and the long distance phone calls to get clearance to continue the whole game. Lugging tons of amplifiers up a stairs to the 12th floor and finding out it is on the 5th... getting all the mikes and wire coiled up to carry back down stairs...mike stands sticking out from underneath your arms so you felt like a porcupine and you always bumped into someone and had to apologize...getting all the gear outside on the sidewalk and having to stand there and guard it until a taxi picked you up...so tired now you wish you had gotten into some other business, but underneath it all a feeling of satisfaction that you might have brought some degree of pleasure to someone, someplace, in the vast outer space called radioland.

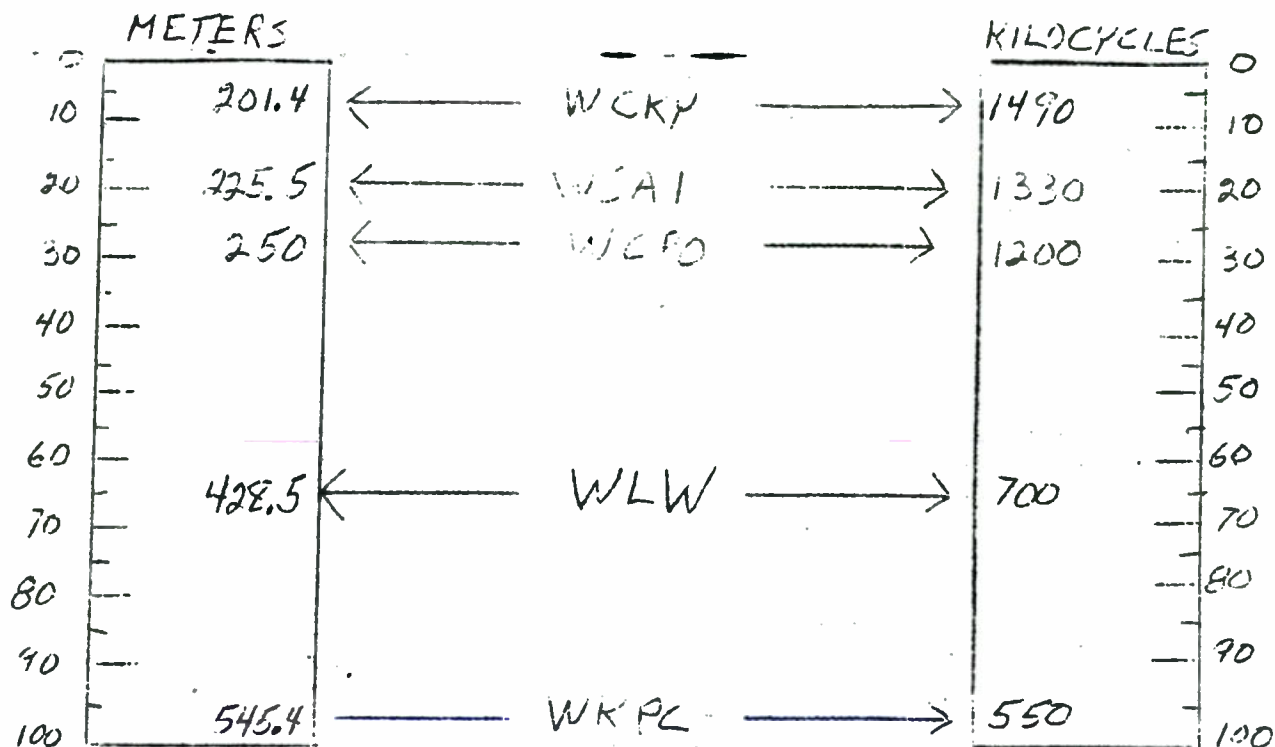
Cincinnati was always on the move and in 1938 the railroads began using diesel engines and seven years before the Union Terminal was built. It was from here each day you hear Paul Hodges "Are you arriving or leaving, or just passing through?" This came over WCPO at noontime. Cincinnati already had a street railway system since 1925. In 1928 the Greyhound bus lines established a terminal here and the Ohio Bus lines already were established in 1923. In 1925 Motor trucks came into use and in 1927 the Embury-Riddle Company at Lunken airport was awarded a government contract to carry mail between Cincinnati and Chicago. Cincinnati had the country's third labor bank, The National Bank, founded by the Brotherhood of Railway Clerks in a building on Vine street near Court. In 1932 the 21st amendment to do with prohibition was passed.

In 1930 the newspaper listed the programs of WFBE for February 28th, on a frequency of 249.9-meters:

11:00 AM.....Adam E Meyer program
 11:30 AM....."Link's" Victor program
 12:00 PM.....Weather forecast and time
 12:01 "Wurlitzer Hour
 1:00 "Snow King
 1:30 "Herman Victor Musicale and Swiss Garden review
 3:00 "Weather forecast with George P. Gross
 followed by "Radio Merchants Musicale."
 3:30 "Brown-Twnehofel show
 4:00 "Burker-Bauer program
 4:45 "Scrapbook time
 5:00 "Musical show starring George P. Gross
 5:30 "Giner Jingles
 5:59 "time signal by Golden Rule
 6:00 "Grebe Vaudeville show
 6:30 "A special show "Every Evening"
 7:00 "American Wrecking and Salvage Company program

This was followed by a remote broadcast from Swiss Gardens (Bond Hill) with the music of Earl Fullers and his orchestra for 15-minutes followed by the weather report sponsored by the Pymacide company. Harry Hartman had a sports show, or review, at 7:30 and at 7:35 a health talk was given. Instrumental interlude was listed followed by a time announcement from telechron at eight. The rest of the evening was mostly live orchestras such as that of Earl Fuller and a variety show called "Hersh Radio Nightclub."

One of the city's great announcers was Nelson King and he tells of his experiences from the year 1934. "Hi, this is Nelson King, When I go back to my earliest recollections of radio, I suppose I go back as far as all those in my age bracket, which shall remain un-announced, but it's on the shadyside of fifty I might say. I've built my share, or tried to build my share, of the old crystal sets with the catwhisker and little piece of galena crystal. The Mother's oats box wound with fine wire for a coil. I think my first memory of commercial radio, as such, was when the big-battery powered units first invaded the homes. Believe me you had to have a whole room to house this radio in. Almost big enough to put a radio transmitter in. What with the various "A" and "B" batteries, wet-cells, and dry-cells, the large "Morning Glory" speakers. You had a power cabinet and the radio cabinet with six or eight dials, it was quite a job just to tune in a station so that it was audible. As I went through high-school, and grew older, the superhet sets began to hit the market and then the era of the all-electric radios started. All sizes of cabinet styles: high-boys, lo-boys, secretary desks, and table models." Then Nelson continued with the Cincinnati story. "I started as a salesman for WPAY in Portsmouth, Ohio, the year was 1934 and I was paid \$10 a week which increased if I sold more than that. Finally I got into the program end and got the sum of \$15 per week as an announcer. I left there in 1936 and went to Huntington to work for WSAZ. I worked at good old WSAZ until after the 1937 flood. That would be in June of 37...in June of 1937 I came to work for WCPO. The days of Harry Hartman, Bob Bentley, Red Thronburg, Larry Tresler, Paul Hodges, and we all had a ball. Those were the days of 'Going, Going...Gone' from Harry Hartman and Bob



1936 FREQUENCIES AND WAVELENGTH — FREQUENCIES CHANGED LATER

Bentley's "Man on the street" programs. The many voices of Paul Hodges with his famous train-time from Union Terminal "Are you arriving, leaving, or just passing through?" Well, I stayed with WCPO until 1939 when I had a job offered me in Louisville as program director of WGIC. This was a small station without network affiliation, but nevertheless, it became later the local outlet for the Mutual network. I stayed there until May of 1941 when I came back to good old Cincinnati to work for WKRC."

One of the shows I was especially fond of on WCPO was the Guy Lombardo orchestra on the air each afternoon just after the 12-noon news show. The announcer was David Ross, and I thought he had one of the finest voices on radio. Actually he did have a poetry program at one time and possessed a voice cultivated toward these readings. His diction was immaculate, and particularly adapted for the Guy Lombardo show. His introductions went something like this: "It's sweet music in the smooth Lombardo manner, and a melody as beautiful as a blue starlit sky. The Moon is back in business, and it is sung for you by Kenny Gardner." Guy Lombardo had opened the show himself by saying "Hello everybody, I hope our programs are bringing you real listening pleasure. You know, we always try to play the songs you've told us you like best. So to start our show, here's a tune that has won your applause, and it's an inspiring song that should live forever—"Till the end of time" and it is sung for you by Don Rodney."

Then the first medley, David Ross said "It's Lombardo medley time. Time for three tunes which the band is going to play, and a chance for all of you to try your hand at song-detecting. Am I right Guy?" he asked, and Guy replied "In a word David, yes, and folks here are some clues to help you guess the songs we are about to play. The first tune was written in 1922 when people were reading 'An outline of History' by H.G. Wells, and singing 'A Kiss in the dark,' and 'My Buddy.' It is a song that asks the question about tears. Our next song is about a happy couple of lovers, who lived beside a happy little stream of water." Then David said "I see, and what about the third song Guy?" Guy answered "It is a beautiful song David and it was written by Duke Ellington." David replied "Well, there you are folks, now let's see how good you are at tune-detecting. Guy will tell you what the songs are at the end of our show, but right now try and name the titles of the tunes in this Lombardo Medley." Music starts, and plays three songs...at the end of the half-hour show David announced the titles "The names of the songs were 'How deep is the ocean?' and 'I'll get by,' and I'll be seeing you." During the show David Ross announced each number in this fashion: "You are listening to the sweetest music this side of Heaven-on the Guy

Lombardo show. Two spots light up the darkened bandstand now as the twin pianos take the lead to this Lombardo version of "The National Emblem March."...then again the voice of Guy saying "Maybe it's because most song-writers are men, or maybe it is because feminine beauty is such a popular subject, but there are a lot more popular tunes about girls than about men. So, for this Lombardo picture-story the entire company assists David Ross in telling you about "Girls." Music up..."A Pretty Girl is like a melody"...fade music for David "You keep your riches, cause what have you got? A check book, an auto, a big house and lot...all I want to own...is a lifetime alone, with "The Girl Friend"...music up..."I wonder sometimes if there might not be another face as fair as yours, and then I look about me and I know I couldn't love you, need you, want you more "If You Were The Only Girl In The World." music starts...There's a picture in my memory that will not fade, and a vacant corner of my heart that will not fill, for fate has fastened me securely in this place, that once was strange to me, and, back home...well, "There's a girl in the heart of Maryland"...I like those evenings at the club, remembering with the boys...I like those Sunday afternoons at home when relatives drop in...and those other times when neighbors come to call...but the times I like best of all are those when "I am alone with my best Girl"...music up..."I don't want a girl who stays out late...I don't want a girl who people think should be a movie star...I just want a girl who wants me too...cause "I want a girl just like the girl who married dear old Dad"...music up..."We are young so brief a time...and though the years may change you and the way you look...to me you will always be the sweetest thing in life."The most beautiful girl in the world"...music up...Then Guy Lombardo said "We said hello to the music of our theme and now with that same music we are about to say goodbye. This is Guy Lombardo saying Goodbye, and I hope we will be seeing you again real soon." Then "This is David Ross inviting you to join us again for the sweetest music this side of Heaven, with Guy, Carmen and Liebert, The Lombardos trio, Don Rodney, Kenny Gardner, and the twin pianos, The Lombardo picture story and another famous Guy Lombardo medley.

As the theme dies out, "Auld Lang Syne" it is my hope that surely old acquaintance will ne'er be forgot, and somewhere along lifes' airplanes, it will be recalled, this style of broadcasting was the thing in the late 30's and thru the early 50's.

By January, 1966, WCPO had come to the end of the road. Because of legal proceedings to do with multiple ownership of radio stations, and this coupled with newspapers owning radio stations in the same market area, the FCC made the owners divest themselves of this dual control of public opinion. All the effort that had been expended toward building public service was thus legally brought to an end. The right of a government to take away a business from one party and give it to another is questionable in my mind. The sale price was even stipulated by the government, and thus free enterprise becomes just a word and not a reality.

Negotiations leading toward the sale of WCPO and WCPO-FM began in September of 1965 with much nudging by the FCC. Scripps-Howard sold the station to a firm headed by Danny Kaye called Seattle-Portland, Spokane radio of the west coast. The sale price was \$750,000.

Bob Gordon, general manager of the WCPO stations disclosed that the buyer, Spokane Radio, has a reputation for excellent radio operation, and we would not have considered a sale of WCPO without the confident belief that Greater Cincinnatians will continue to receive excellent service from the stations.

This sale means that one of Cincinnati's earliest members of the broadcasting family will pass from the scene. Mr. Watters and Mr. Gordon of WCPO both said "We would not be candid if we did not acknowledge that this will be a difficult personal attachment to sever." Then a newspaper article said "However, without new plans for growth and development of WCPO-TV IN THE TRI-STATE AREA, we felt that our energies and resources must have single-line direction in order to achieve their fullest potential. We have a new building, new color programming, new ideas and new public services in the active and/or planning stage. And we feel there should be no distraction from our determined goal of combining all these plans in the Tri-State that exceeds anything so far conceived in the field."

Spokane radio is owned by Danny Kaye and Lester Smith, and is a subsidiary of their DENA Pictures Inc., and Alexander Broadcasting Company. The transaction includes purchase of the station and its building site at 2345 Symmes street in Walnut Hills. The Scripps-Howard television station, WCPO-TV will continue to broadcast out of the same location until its own new building, next to Cincinnati's convention hall is ready sometime in 1966. The new owners of WCPO radio stations will not take title to the land and building on Symmes street until WCPO-TV moves to its new building downtown. The call letters, WCPO will be changed to WUBE, and WCPO-FM becomes WCXL.

So now in 1970 we find in retrospect a small station which began as WFBE and then became WCPO in 1936 and a climb upwards which was helped immensely by the affiliation with the Cincinnati-Post newspaper ownership has climaxed in a sale, lock, stock, and barrel, in the year 1966. If you study the facts of this station: its extremely low power combined with a frequency shared with several hundred other stations it is then you realize that this station had excellent managership. A radio station running only 50-watts in the daytime from a poor location and 100-watts at night competing with the Cincinnati radio stations running from 5000-watts to 50,000-watts is a handicap which would be a real challenge to a genius. In the public's mind WCPO was as large as any in the area. This took a real job of public relations to accomplish this feat. Giving credit, where credit is due, it can be attributed to one man. Mort Watters who came to WCPO in January of 1938. Under the title "Mort Watters marks 20th year at WCPO which appeared in the September 8th issue of the Cincinnati-Post for 1958 it said:

"Twenty years ago today, September 8, 1938, Mortimer C. Watters became general manager of a small, squawky infant named WCPO, which he had never seen, and which might or might not be worth nourishing.

Mr. Watters, then 29, spent the next 20-years raising his infant into the important radio-television operation now located atop the Symmes street hill. Along the way he also raised himself. "Mort" Watters still is general manager of his stations, but he also is vice president and a director of Scripps-Howard Radio, Inc., the stations owner.

His success will be recognized at a 20th anniversary dinner Wednesday night at the Rude Park Country Club. Scripps-Howard management, headed by Charles E. Scripps, is sponsoring the affair. Mr. Watters, a native of Rochester, N.Y., was graduated from Georgetown University with the somewhat rare degree of Ph.B. (bachelor of Philosophy), and got his start in radio as sales manager of a station in his home town.

At 25, he was hired to run three stations in West Virginia. That made him the youngest station general manager in the country. He still may have been the youngest when Scripps-Howard bought old WFBE, changed the call letters to WCPO, and brought Mort Watters here to make it worth its signal. Mr. Watters made WCPO compete successfully with other stations much greater having much greater power, and he made it pay.

But his most spectacular successes didn't come along until television. He started WCPO-TV in 1949, with the first telecast being a Reds' baseball game. Another station already was telecasting the games, but WCPO-TV put cameras in better spots to catch the action, and quickly gained the most viewers. Mr. Watters has discovered, promoted, and developed many TV stars and personalities. Some of those on the long list are Jean Miller, Rosemary Olberding, Dotty Mack, Paul Dixon, Bob Braun, Colin Male, Gail Johnson, Millie Cozart, and Al and Wanda Lewis." So in my own "Hats Off" department I can only add my "Well Done" to the above accolade and say that if more radio stations had emulated the practices of WCPO the FCC commissioner would not have said "American Radio is a vast waste-land."

For more than four decades WCPO informed, inspired, educated, stimulated, and entertained. The young, the old, the middle-aged, the rich, the poor, the shut-in, the vast complex of religious, national, economic, racial groups, that formed the vibrant mass who listened and responded when RADIO was king. So on the evening of the end of the first 50-years of radio the question remains: Will America awake in the morning of the next fifty-years?

WCKY-1530250,000 Watts-clear channel
founded 1929

Most history books will give you a date that such and such an event occurred. To me this isn't important unless it is defined in terms of the person, or persons involved, and the times in which they lived. Suppose all you knew about December 25th was that a certain event happened? It has little meaning unless the full story is told.

A brief summary may help to explain the full story of WCKY. The offices and studio were on the fourth floor of a building on the southwest corner of sixth and Madison Avenues in Covington, Kentucky that September 16th of 1929 when WCKY signed on the air. Across the street was the Peoples Liberty bank and the Liberty theatre. Over the years the various "station breaks" coined to help identify it. Various known as "The L.B. Wilson station," and "The Voice of Cincinnati," and "WCKY-One minute from Cincinnati."



MADISON AT SIXTH
COVINGTON, KY.

It began as an associate outlet for the National Broadcasting companies' "Blue" network. L.B. Wilson, in 1928, had interested several Northern Kentucky and Cincinnati business men in radio broadcasting. A group was formed as the L.B. Wilson, Inc., and they applied for a license to operate a five-thousand-watt station with call letters of WCKY. This appeal made to the Federal Radio Commission as the FCC didn't come into being until June of 1934. The letters WCKY ostensibly standing for C-ovington KY- kentucky. The transmitter was located at Crescent springs, Kentucky, about 8-miles south of Covington down the old Dixie Highway. The story of how Wilson began the station will evolve in a moment. At first he had appointed a manager for the new station, but in 1931 he took a more active part himself in running its affairs. L.B. Wilson had many interests. He was active in theatre management, manufacturing, retail merchandising, and politics. After disposing of some of his other interests, an expansion program was started and by July of 1937 the station's power was doubled from five-thousand watts to ten-thousand watts. In that same year a new high-fidelity transmitter was constructed and the new station was now broadcasting on a frequency of 1490 kilocycles. WCKY was on the air 19-hours daily in 1938. It began another studio in Cincinnati in the Netherland Plaza Hotel, and with offices and advertising sales housed in the Hotel Gibson Hotel. It was said in 1938 that the programs were about 80% network sponsored. Networks made a change in December of 1937 so that commercial sponsors may use either WLW, WSAI, or WCKY, the NBC stations. In 1938 about 50 persons, including five announcers, six engineers, and the rest script writers, technicians, and studio and office workers were employed by L.B. Wilson.

But we are getting ahead of our story. Perhaps it is just as well to look ahead a little further and see what effect WCKY had on the Cincinnati scene. In 1940 you would have observed that the city of Cincinnati lead in many fields. In the sphere of broadcasting it is no less outstanding among American cities. In 1940 there were five excellent broadcasting stations, who serve not only its own hundreds of thousands of listeners, but reach out beyond its limits to bring pleasure and instruction to countless thousands in other communities.

Two of the radio stations operate on 50,000-watts of power, the maximum permitted any commercial radio station in the U.S., WLW and WCKY.

Cincinnati is unique among American cities for possessing two such stations, excepting only the major show-world centers of New York, Chicago, and Hollywood, where

WCKY 1929
STUDIOS

the big networks have their key stations, and points of program origination. Indeed there are less than 2-score of these "big boys" in the country. Although the total number of U.S. broadcasting stations is just above 800 in 1938 and with powers of only 100 or 250-watts. In 1970 there are 5,100 AM radio stations.

The man who brought to Cincinnati the distinction of having a second 50,000-watt station is L.B. Wilson, president and general manager of WCKY, so said the Times-Star in 1940. The 100th anniversary issue said "Boy, who at 12 staged magic-lantern show, is now at age 48 one of the United States 50,000-watt radio station owners." By 1940 WCKY was one of the country's leading broadcast stations. The newspaper said "In so doing he has made his name synonymous with his call letters and no person in the broadcasting industry, holding a position of consequence, is unfamiliar with both CKY and L.B."

Furthermore, "L.B. Wilson was educated in the public schools of Covington, but he learned much in the school of hard knocks. To his early years may be attributed the sound principles of buying and selling and of giving value for value, and never holding a grudge because of real or fancied wrongs."

"Wilson Pere was out of town on business trips much of the time. The motherless Wilson brood was entrusted to a governess, who handled the allowance money. When L.B. or his brothers wanted extra cash, it was up to them to go out and find some way of working for it. This the future radio-showman took to as a fledgling bird takes to flying."

"Allergic to humdrum pursuits and keen for any branch of show business, L.B. joined his brother Hansford, in vaudeville. The Wilsons played Berlin, Paris, and London. When L.B. was in London he thought of taking a flier at a Spanish tour doing a single. He was booked in fact-and was about to go to Madrid, when someone gave him a tip. At the Water-Rats club in London, an actor said 'L.B., I wouldn't go to Spain, they haven't forgotten Admiral Dewey. They heave ripe fruits and riper eggs at Americans on the stage. Only last week an American boy was badly injured when knocked off a pole on which his father was juggling him. Spanish vaudeville is no place for hoofers from Broadway.' L.B. took the tip. He canceled a steamship ticket he had reserved for April 1912. He sailed for America at once."

"Came the rise of the movies, and the days when vaudeville-plus-films was the rage. Still in his teens, L.B. was engaged by Orene Parker of Covington, to manage his new Colonial Theatre on Madison Avenue in Covington. Attendance picked up, but Parker thought he had a cinch when L.B. bet him he could pack 7,000 paying customers into the theater in one week. Wilson then wrote and produced a show of his own, a revue with local talent-authored two-songs for the production. By Friday night he had reached his quota, won his bet."

"Radio came along, some said it meant the theatre was doomed, Wilson naturally was interested. He watched the upstart branch of 'Show Business' decided he better have a finger in the pie."

"He organized L.B. Wilson, Inc., and applying for a radio station license. Radio was in a muddle just then. In 1928 one Cincinnati station had even been put off the air! It seemed there were too many stations. It was restored later just before WCKY was granted its license."

granted its license."

"The L.B. Wilson station started out with 5,000-watts-not bad for those days-but it shared time with 3-stations in the Chicago area. This meant it was on and off the air at stated intervals. Later this situation was cleaned up to the satisfaction of listeners, with CKY being granted full time operation."

"CKY went along for 2-years as a good station, but not an outstanding one. In 1931 Wilson decided to see what really made the wheels go 'round in radio. Divesting himself of some of his other business interests, he took over the post of General manager, in addition to the presidency of the station. Things began to happen."

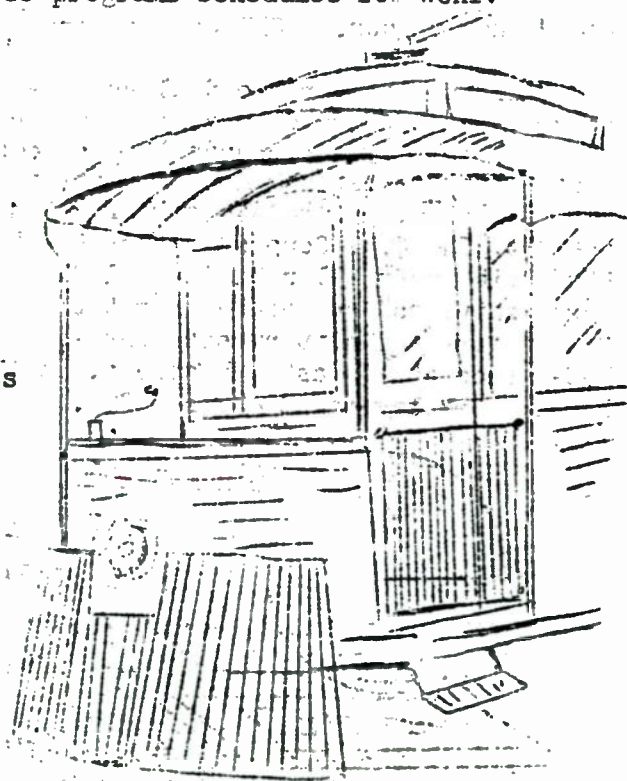
"In 1937 CKY won an increase in power to 10,000-watts. In 1939 on its 10th birthday the station really came of age, boosting its power to the limit of commercial stations wattage-50,000 watts. At the same time Wilson changed his network affiliation from NBC to CBS."

"Keen wit and jovial friendliness makes L.B. a favorite among radio folk among whom he circulates at national gatherings of broadcasters. 'Have you heard L.B.'s latest story?' is a common expression at these conclaves. In 1940 it was just as easy to meet L.B. as it was 30 years ago when he was the teenaged theatre manager."

"Wilson has never had office hours. You're as likely to find him at his desk at 10 PM as at 10 AM. Sundays often are his best days to concentrate on some knotty problem."

In December of 1935 the newspaper carried these programs schedules for WCKY.

6:00 PM	Flying Time
6:15 "	Connie Gates
6:30 "	Digest Poll
6:45 "	Grab Bag
7:00 "	Star over Bethlehem
7:15 "	Captain Tim
7:30 "	Strange as it seems
8:00 "	Fibber McGee & Molly
8:30 "	Evening in Paris
9:00 "	A & P Gypsies
9:30 "	Princess Pat
10:00 "	Herbert Hoover address



Dixie terminal via Madison avenue
out to Crescent Springs-1930

For several months prior to September 16th 1929, the city of Covington, Kentucky was all agog in anticipation for the new radio station to be built soon. Numerous hearings had been going on in Washington, D.C. The argument was over the location of WCKY. You see, Covington is only one-minute from Cincinnati. This geographical location was ideal. There were no more channels available, at that time, for a station in Cincinnati itself. The FCC or rather the FRC as it was known in that year, had taken the attitude that even

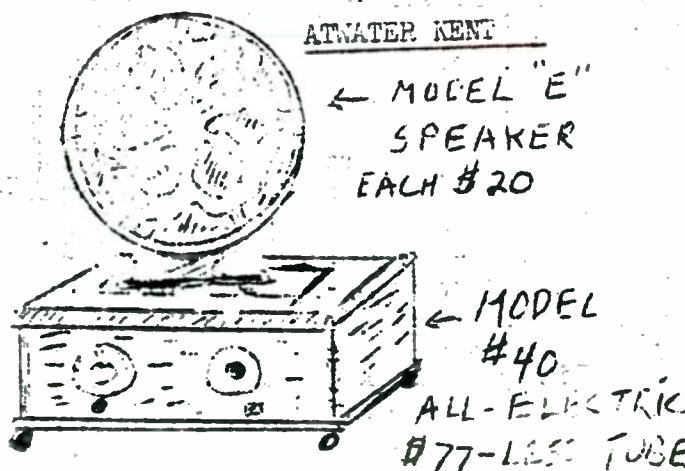
though Covington was the same as Cincinnati, as radio knew no boundaries, it was still another city, and, most important, another state. WSAI, which had been bought by Crosley in 1928 (a year before WCKY) from the U.S. Playing Card Company, wanted a new wavelength, but WCKY got it. This wavelength hearing over with, L.B. Wilson began to organize local and Cincinnati business people into the L.B. Wilson Inc. as early as 1928. The Kentucky Post Newspaper had carried many stories months before WCKY signed on at 7:45 PM, September 16th 1929. Only the day before, almost the entire paper was devoted to WCKY. The transmitter was to be one built by RCA running 5000-watts, the same type that WHAS in Louisville was using. The first announcer was Leo Goldsmith and a few weeks later it was Sid Ten Eyck, who now lives in

Bellevue, Kentucky, and who later went on to WLW as a sign-on announcer and became famous with the "Doodlesockers" program. This was sponsored by a mythical Company called "The Dolly Dimple Steam Roller Company." He had a partner, Bob Burdette. The first chief engineer of WCKY was a Mr. Butler and the remote/studio engineer was Len Swope. The general manager was Leo Goldsmith who formerly was with WSAI at the U.S. Playing card company in Norwood. Mr. Goldsmith was employed as manager of a new station in Denver KFX, 250-watts, immediately before working for WCKY. Thomas Warren was to be his assistant.

WCKY, "One Minute from Cincinnati" with main studios at sixth and Madison avenues in Covington is Cincinnati's second largest station. Variouslly know as the "L.B. Wilson Station" and the "Voice of Covington." WCKY first began broadcasting on September 16th 1929 as an associate outlet for the Blue network of NBC. Transmitter to be located at Crescent Springs, Kentucky (where it still is).

The dedication exercises began at 7:45 PM with L.B. Wilson talking and welcoming the listeners to the new voice added to the airmen. Dozens of important people both political and those of the entertainment world were there for the occasion. Rome Renss, who owned the 500-acre Highland Stock farm and race track near Florence was there as was the Governor of Kentucky, Flem Sampson. It was quite an evening in Covington at sixth and Madison avenues. At 8 PM a special program originating at New York City with the great sports announcer, Graham McNamee on hand. This was co-sponsored by the Scripps-Howard newspapers and the Kentucky-Post. At 9 PM one of the local German bands gave a concert and at 9:45 PM Governor Sampson of Kentucky gave an address. At 10 PM the Times-Star newspaper had a show. At 10:30 the "Howard" radio company put on another show from the fourth floor studios. Then back to New York for the "Slumber Hour." WCKY was to carry NBC programs.

All the local radio dealers were on hand and for several weeks had run advertising promoting the brand of radios they were selling. Here are some of the dealers of that time and their radio brands with prices. It is to be recalled that this month of September was just one month before the stock market crashed on October of 1929. Prices were inflated, but radios sold fast and furious at this time because of the newness of the art. The J.R. Coppin department store on 7th and Madison advertised the very large "Majestic" model 91 radio for \$159, this was the heaviest radio I have ever seen. It was massive and one of the first to employ a cone type loud speaker. The Taylor & Gosney time and battery shop were selling the famous "Steinite" as did the Johnson Radio shop at 29 east 7th street. The Adams music shop, with Paul Good as manager, had the Crosley model #32 for \$99.00



For 110-120 volt, 50-60 cycle alternating current requires six A.C. tubes and one rectifying tube, #77 without tubes.

"Radio's Truest Voice" Atwater Kent speakers: Models E, E-2, E03, same quality, different size. Each \$20.

The Dine-Schabell furniture co., also in Covington, had the "Atwater Kent for \$169 and the smaller models as shown alongside for less money. Rosen Furniture Company of 511 Madison avenue, Covington, sold the "Kellogg" radio, this was the one which had the overhead filament wires called "Trolley Wire Tubes" because the parallel wires looked that way. Dixie Hills Radio at 122 Pike street sold the "Freed-Eiseman" radios, and Schuster Electric in Cincinnati handled the "AMRAD" L. B. Wilson himself advertised two lines of radio called: "Kenton" and "Green Diamond." Kraus Radio at 111fifth street, Cincinnati, sold Atwater Kent and the Tri-State Ignition co. handled Philco-first with the finest, phone CANAK 7400. I remember Bert Brown who did all the radio service for philco. The Cincinnati Time Recorder company at 1733 Central Avenue sold a radio console with a walnut finish and with a "Newcombe and Hawley" magnetic speaker, built-in, for \$59.50. TRIAD tubes were distributed by Klein and Kramer company 22 East 12th street, phone CANAL 1997.

Before November,1931, when L.B. Wilson began active management of the station, he had engaged in Banking(president of the Peoples Liberty Bank), theatre management of the L.B.Wilson Theatre (burned down and replaced by the Madison theatre). the Broadway theatre and the Liberty Theatre next door to the bank. He had interest also in manufacturing and retail merchandising, and politics. After he disposed of some of other interest he began the expansion program I had told you about. In 1938 WCKY was on the air 19-hours daily. That brings us up to date..

An interesting highlight, which set a precedent for the FCC, was the move to Cincinnati from Covington. In 1931 Wilson moved WCKY to the Netherland Plaza Hotel. Almost immediately the management of WLW called this to the attention of the FRC. WCKY was saying;"This is WCKY-Cincinnati,Ohio" on their station breaks. Of course WLW and the other Cincinnati stations didn't care too much for this. What right had a Kentucky station to dare say they were in Cincinnati? After a lengthy hearing in Washington, D.C., and after listening to all that WLW had to say, L.B. Wilson asked " By the way, WLW, where is your transmitter?" Of course they replied "In Mason Ohio." Mr. Wilson then said " When you start saying WLW Mason Ohio, then I will start saying WCKY Covington, Kentucky." That was the end of that and this became a landmark case with the FCC and the first time they had ever been confronted with this problem. Heretofor it had been the custom to say that whereever the transmitter was, that was where the station was. WCKY's transmitter remained in Kentucky but their studios are in Ohio. FCC finally said that where the majority of the programs originate that becomes your city.

The business office and advertising sales offices were in the Hotel Gibson in 1938. About 80% of the programs were network sponsored at first on WCKY.

WCKY was on a frequency of 1490 kilocycles in 1938 and a sample of their programming for that year:

- 5:00 PM.....Rocking the town
- 5:15 "Don Winslow
- 5:30 "Sports Review
- 5:45 "Tom Mix (remember "The straight shooters?)
a weekly adventure that resolved itself every Friday.
- 6:00 "Orphan Annie (daddy warbucks)
- 7:00 "Paul Kennedy-NEWS
- 7:15 "Easy Aces

ACE: Oh,hello,Jane. Didn't hear you come in.
What are you doing downtown this early in the day?

JANE: Dear,I just did the most terrible thing I've ever did in all the years we've been married and ten months.

ACE: Uh? What did you-

JANE: But first I also want you to know I feel terrible about it and I'm going to cancel it.

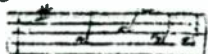
ACE: Cancel wa-----etc.

At 7:30 PM was "Lost Persons," followed by Edward Davies at 7:45 and at 8 PM a one-hour long drama "Those we Love." Other programs were "Alias Jimmy Valentine, Kidoodlers followed by live orchestras on a remote broadcast from different night spots featuring the music of; Blaines orchestra; Pryors orchestra and other local dance orks and on and on into the night.

When WCKY signed on in 1929 the program looked like this in the evening:

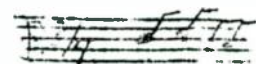
- 6:00 PM.....Richard Himbers orchestra
- 6:30 "Potash and Perlmutter
- 7:00 "Irene Rich
- 7:30 "Bert Lahr-remember the lion in the "Tin Woodman in OZ?)
- 8:00 "20,000 years in Sing-^ging
- 8:30 "John McCormack

In the year of 1935 L.B. Wilson wrote a song and sang it on the stage of his Liberty Theatre. The orchestra was called "Liberty Ragamuffins" and it was recorded on stage on a 78 RPN disc.



D R E A M A W A Y

by L.B. Wilson



There's a story old and true...opportunities are few...dreams that never do come true...don't mean anything to you...you cannot shirk...you'll have to work...so open up your eyes...Here's a scheme...that's like a dream...but, you can realize...

CHORUS:

Dream away...that's our home sweet home...Dream away with the one you love...alone...there is where our happiness began...just like the book...there is a brook...with babbling waters that will never end...hour by hour...by the open fire...with a girl and boy...while our dreams come true in Dream Away...

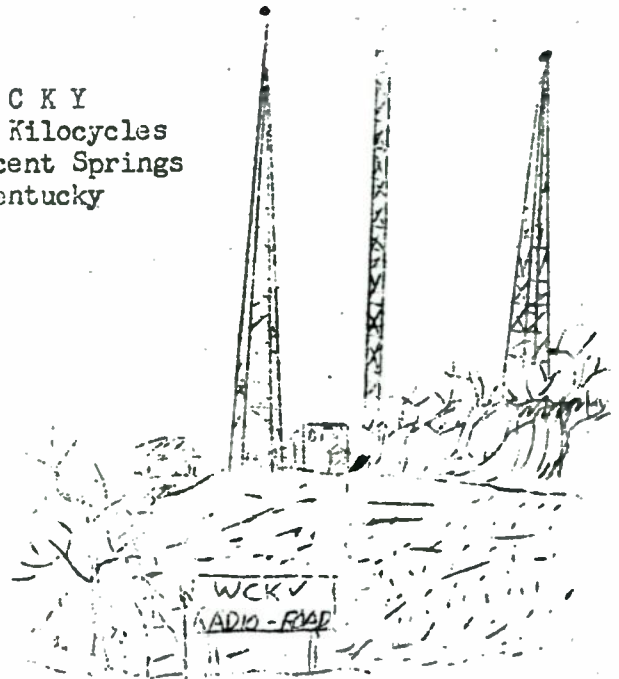
L.B. Wilson had said in the beginning "Service is radio's primary function, an audience, its elementary asset." 24-years later, in 1953, he said "We are proud of the story of WCKY, but any feeling of pride is subordinated to a feeling of humility, because of our realization that a broadcaster bears a tremendous responsibility to the people-and to the nation." He then stated "WCKY remains dedicated to the PUBLIC SERVICE. It will never lose sight of the fact it IS because it SERVES." A look at the date on which WCKY commenced operations will disclose it was at the start of the great depression era. WCKY refused to remain static. It began to feed programs to the network in the early 30's and in 1933 it won a "Billboard" award for Outstanding exploitation. The writer, Snow, of the Radio Daily said then "L.B. Wilson survived the depression." And "...the staff is being enlarged constantly; local programs are being improved, and in every way WCKY is striving to fulfill the purpose of all radio stations...TO PROVIDE PUBLIC SERVICE." It was then that L.B. Wilson said himself "WCKY believes in the American system of radio, and in the American system of Government, and stand pledged to support both without reservation, and without sparing of effort, WCKY has but one purpose-TO SERVE THE LISTENER."

Then, December 7th, 1941. Radio went to war, and in the process radio brought the news right into every home. Radio-News was born, no longer was the printed page supreme. Radio could do what no other medium could and radio was listened to as it had never been before. WCKY stayed with CBS all through those years of 1941-1945. The voice of Elmer Davis carried authority and it was said he could deliver more words-per-minute than any other newscaster had ever done. Tarawa, Midway, and all the other places became as familiar to WCKY listeners as the name of Fountain Square. And over that square WCKY installed a huge sign on the second floor level facing the fountain with a constantly changing system where words flowed by with a system of light bulbs. You could stand on the square and catch all the latest news from this signboard. The day the Japs surrendered the WCKY sign spelled it out, hour after hour, and the air ace Captain Gentile homecoming at Piqua, Ohio was aired from WCKY. The U.S. Navy broadcast to the nation from WCKY. June Haver, movie star auctions throrobred colt for \$100,000 in War Bonds. WCKY took over Cincinnati's famous fountain square; set up an official Bond Booth, and in 1943 sold hundreds of thousands war bonds. The station sent its mobile unit into the three-state area for metal scrap, bond drives, blood donor appeals. It utilized its "Miss America" contestants for "smokes" and "bond drives;" turned over its air personnel to War Agencies, and instituted a number of inspirational programs, including "Call to the Colors"...a dramatic pause in the city's activities, observed throughout the was in the downtown area daily, at retreat. A dramatic production "Let Freedom Ring" as aired, the only commercial being an appeal for blood for the Red Cross. In the week of March 20, 1943, 2801 pints of blood were donated through the Cincinnati Red Cross, topping a previous high of 900 pints. WCKY received the highest commendation award from the National Red Cross Headquarters for this program.

Letters began to reach the station from battlefront listeners, and the Marines on Guadalcanal reported that WCKY was the only American station received regularly. An early morning program for these troops was started, bringing the voices of loved ones to the far off troops, and both Liberty and American magazines reported on the station's contribution to overseas troop morale, through its special programs.

In 1945, at the conclusion of the year, L.B. Wilson made a decision to become an independant operator, and after exhaustive study, block programming was established. He said "It requires courage, startling departures, research, and planning, but it will bring audience prestige and accomplishments. Its prime purpose is additional service for the listeners."

W C K Y
1530 Kilocycles
Crescent Springs
Kentucky



Take the Fort Mitchell streetcar out to Buttermilk Pike, turn right to end turn left on Amsterdam, past the apple orchard and take road on right side.

And the new format brought programs that have become nationally famous and have become institutions. "Make Believe Ballroom" with Rex Dale... "The Jamboree" ... "Daily hit parade" ... Waltz Time ... Chapel with Rex Dale ... Breakfast time ... Nightriders ... Night Hawks ... and WCKY's news became one of the largest radio station news set-up in the industry, works round the clock to keep up with the station's 24-hour broadcast service. The weather-direct from the weather bureau ... long daily WCKY services. This concept in programming was accepted so enthusiastic that 590,749 approving letters were received. In early 1946, WCKY established its own New York office with Thomas A. Welstead as eastern sales manager to better serve the agencies AND advertisers to reach maximum audiences. The news department was formidable and a clear policy was established... "there will be no commentary, no coloring, no withholding of news, local and regional, national or international."

In 1948, WCKY went on a 24-hour schedule. A civic series "The Fountain Speaks" was aired, and the Cincinnati Library wanted recordings for schools. Listeners queries were answered on "Official Answer." Safety Essay scholarships offered by the station and a school for high school students who wanted to learn radio techniques was inaugurated. At the state level "Report to the People" by Ohio's Governor. In 1948, also, Charles H. Topmiller, former chief engineer, was named station manager and L.B. Himself received the achievement award from the chief of Naval Personnel. In 1951, WCKY dedicated an additional 50,000-watt transmitter to insure 24-hour uninterrupted 24-hour daily service. This was an expression of WCKY's confidence in radio broadcasting in America. Then the awards piled up in 1951. Nelson King received his fifth consecutive title as "America's number one hillbilly disc jockey" through a national poll, a feat that was duplicated in 1952 and 1953. Rex Dale of "Make Believe Ballroom" was eekted "National Prince of Platter Spinners" by readers of Movie Star Parade, and Leo Underhill received the Community Chest award for the best campaign program. Dr. Paul Nagai, Christian educator, of Nagasaki Japan, thanked Rex Dale for his successful efforts to replenish Japan's library destroyed by the ATOM bomb.

L.B. Wilson, himself a 24 year veteran, in 1952 said "The station has been built on the loyalty of its stadd." Defense bonds were handed 20-year veterans, Diamond pins were received by 13 who had ten years or more at WCKY, and scores received 5-year pins. Local charaties were the recipient of proceeds from "Talent Opportunity Tournament" program lauched in a three-state area. In contrast, a lonely GI in Korea was receiving no mail. His buddies wrote the Jamboree, and Nelson King told his listeners about it. In a couple of weeks the Far East edition of the "Stars and Stripes" carried a picture and story of the G.I., stating that through WCKY's efforts he had received thousands of letters from all over the U.S. and Canada.

In 1953 station manager Charles Topmiller was made executive Vice President, after 23-years of service to the station, and Mr. Wilson reiterated his oft expressed philosophy: "We must continue to endeavor to bring to the listener, not only entertainment and diversion, but development of the religious, social and educational

and educational aspirations of the American People." And in this same year WCKY installed a 200 kilowatt diesel generator to provide uninterrupted service in event of power failure.

And so, as it approaches the close of the first quarter century of adherence to the principles on which it was founded, WCKY, its directing head and its staff, confidently face the future of the L.B. Wilson station (this stated in 1953) Secure in the knowledge that as long as it does stick strictly to those words, its future is bright. At the quarter century mark in 1954 WCKY had air personalities: Wayne Bell, Bob Flaherty, George Winters, Virginia James and the "Joe James Show," and Jim Thomas with "America Outdoors," and the ever present sports announcer, Dick Bray. I remember Dick Bray myself back in 1930 when he officiated basketball games at Norwood High School and other large Cincinnati schools. When you heard a sports program broadcasts through the eyes of Dick Bray you always that you were there in person, he was that good. John E. Murphy held down the post of news director and Paul Sommerkamp as news writer. Do you remember Eddie Donnelon the news reporter? Silas Shulman, news writer? Some of the other newsmen were DeLoss Jordan, Frank Riley, Fred Holt, and Don Payey. In the music department were Janet Kendall the librarian, Fay Hauer also librarian, and Jane Korte and Betty Durkin. At the desk you were greeted by receptionist Gaye Winget in the daytime and at nighttime by Catherine Baumer. The relief receptionist was Agnes Muething. In the mail room were Jeanne Hutchinson and Henrietta Spreckelmeyer. At the transmitter for maintenance was Joe Voscul, Thomas Ware at the offices & studio, Alec Sanford for equipment maintenance. In the technical end of the station were such persons as Arthur Gillette as superintendant of studios, Norman Ponte, supervisor of the transmitters, Bud Spenlen as studio control engineer. Jack Dickerson at the transmitter and it was he who had installed Covington's first two-way police radio system in 1941. Adrian Lentz as studio control engineer and Norman Matlack as transmitter engineer. Carl Bessler at the studio and James Ranney at the transmitter with Gilbert Fuller at the studio control along with George Hanna at the transmitter at Crescent Springs. Air personalities Rex Dale, Leo Underhill, Marty Roberts, Dick Williams, Paul Miller and the all-night country music jockey, Jimmie Logsdon. At the New York office were Thomas H. Welstead and Mary Flynn, and in local sales for Cincinnati were George Moore and Mike Spanagel. In the administrative end of business we find in 1953 Jeanette Heinze as executive secretary & traffic manager with Mr. R.M. Fleming for promotion and public relations.

The music director and continuity is Eddie Rupp and Ceil Spreckelmeyer as the auditor. June Ann McDonough as assistant traffic manager and Will Bradshaw as promotion manager. It was Will who later went to WKRC as chief photographer for television.

We pause here for station identification and to look back through the years to 1939 to see through the eyes of WCKY's biographer. THIS IS WCKY-CINCINNATI, OHIO-beautiful to turn to, is the announcement in 1970, but in its beginnings WCKY operated from the top floor of an inconspicuous building in Covington, Kentucky. The writer of WCKY's history in 1953 said: "The young station floundered for two years after 1929 when its president laid aside his banking and other business pursuits, to give the station his full time. Mr. Wilson breathed showmanship, business acumen, and experience, into the enterprise. It took root, a new attitude was created at WCKY, based on the observation that '...the station attracted nationwide attention with its motto...The fastest Growing Station in America. Expansion was the key word. This was in the early thirties- a factor which prompted Jack Snow to write in Radio Daily'...L.B. is one of the few optimists in a gloom shadowed depression era.' WCKY refused to remain static. The station's chief Executive became actively engaged in the radio industry's development. He was elected to the board of the National Association of Broadcasters; Treasurer of the Independent Radio Network affiliates and a Director of the International Radio Club. In 1935 Mr. Wilson declined a possible Republican gubernatorial nomination, and in 1936 the station won the Variety Award for showmanship."

The Ohio Valley's worst flood in history struck the Greater Cincinnati area in 1937. Of all local radio stations, WCKY was the hardest hit, and was forced to use an emergency diesel unit, when electric power failed. Personnel worked around the clock, under the severest handicaps of cold, makeshift equipment, and discomfort-but WCKY stayed on the air serving as an official source for emergency bulletins. When Louisville and Ashland, Kentucky stations were forced off the air, WCKY added the emergency flood

bulletins of these communities, to its already almost superhuman local load.

That same year, in July, WCKY dedicated its new 10,000-watt transmitter. Loyal staffers gave L.B. 10,000 chocolates. He had appropriate cards printed, and sent most of the sweets to friends and associates in radio, as a gesture from the WCKY staff employees.

On July 27, 1939, with his new 50,000-watt transmitter, he brought WCKY within earshot of half the nation, WCKY made a straight-forward announcement... "This is WCKY-as powerful as any radio station in the United States." The statement was not a boast. In a brief dedication ceremony Mr. Wilson said: "WCKY has no blurred vision of dominating the broadcasting field, nor of denying to its competitors the right to live and serve. We are proud of the story of WCKY, but any feeling of pride is subordinated to a sense of humility because of our realization that a broadcaster bears a tremendous responsibility to the people and to the nation... WCKY remains dedicated to the public service." With that increase in power to 50,000-watts, WCKY made another move to Cincinnati with its studios and offices to better serve. In 1940 it was a crucial time for American radio. The world spoke of "War In Europe." The networks covered the conflict, and WCKY stepped up its public service, delivering messages of the precious heritage of Americanism to hundreds of civic groups, schools, clubs, and other organizations, through the constant public appearances of its Goodwill ambassadors... Olive Kackley, Wauhilla LeHay, and Milton Bacon. And then America was in the war...

The wisdom of L.B. Wilson in 1945 to go independent is now apparent in 1953. It had to do with television, and yet not in the manner you would expect. In 1948, with Cincinnati's first television station on the air, there were many that said that this was the end of radio. Radio went on about its business as usual as the TV scheduling was piece-meal and not worth bothering about at that time. But by 1949, when evening scheduling went on, there was a mad scramble by the public to buy sets. An inkling of the effect that TV was to have could be gleaned from the prices that people were willing to pay for a tv receiver. A seven-inch set sold for \$700.00. They were sold by the thousands, even a three-inch set sold for over \$125.00. There is no doubt now that the public was deserting radio. Perhaps intuitively L.B. foresaw this and was already ahead of the field. The impact did not occur overnight, it took many months before it was fully realized. I believe that Fred Friendly who wrote "I can hear it now" with Edward Murrow as the narrator, had unconsciously hit upon the answer. He wrote "The events of this period from 1933 to 1945 will probably be better remembered by ear than by any other dimension. There were more ear-witnesses to Dwight D. Eisenhower on D-Day than there were witnesses at Gettysburg, Waterloo, Thermopylae, Carthage, the Battle of Jericho and all the other battles of history combined." And in another statement "The thirteen years from the beginning of 1933 to the end of 1945 was an era for ear alone. The first, and perhaps the last. Future great happenings will be televised and remembered visually as well as in the mind's ear."

This was it then; it wasn't television competing minute for minute with radio, it was the combination of sight and sound together demonstrating to the public that did it. No longer could the radio reign supreme in the living room with sound alone. From this year onward, radio changed its whole personality. Big shows dropped out one by one until 1960 saw the demise of all but one or two great shows leave the airwaves. I think now, as I look backwards, that L.B. Wilson used more common sense than anyone else during this period. He had already geared his operations to the new role that radio must assume.

Mrs. Jeanette Heinze, Vice President and General Manager of WCKY in 1966 had hit upon an answer: "Programming the Cincinnati sound, WCKY provides a pleasing combination of bright music... interesting talk... professional news coverage... big-league sports in all seasons... and valuable service features." She then went on "WCKY, both the station and its individual staff members, are deeply involved in community affairs. Over the years WCKY has earned an enviable reputation for solid citizenship and civic leadership."

In June of 1967 a series of station break spots written by Jan Heinze reminded you that the Cash Call continues to grow by leaps and bounds. She said "To date we have had 49 major winners and 219 second chance winners, for a total of \$18,982." On May 25 and 26 the spring meeting of the Ohio Association of Broadcasters was held at the Carrousel Inn. Sol Taishoff, Publisher of Broadcasting Magazine attended and Robert Pauley, President of ARC radio, which WCKY had been affiliated with for the past three years, and Frank Martin, President of John Blair & Co. all were visitors at this convention. You were reminded that WCKY night at Crosley Field was on June 23, 1967, when the Reds played the Los Angeles Dodgers. Paul Miller and Lloyd Baldwin co-ordinated the pre-game show. A new sports program was added-a 15 minute show by Bob Howsam-in a question and answer session, at 12:30 p.m. every saturday. Bob is General Manager of the Cincinnati Reds. It was sponsored by two different bottling companies.

The script and tapes of "The Southern Mountaineer"- a people, a place, and a condition, written by Lloyd Baldwin was set up in the Public Library in a section dealing with poverty in our area. The Library describes it as : "WCKY's audio-study of the Appalachian Migrant in Cincinnati includes considerable valuable material on the newcomers' homeland, as well as analysis of their problems in a new home."

A Mother's Day program, in which were selected 6 greater Cincinnati mothers to win a telephone call to their sons or daughters anyplace in the world, at WCKY's expense, was very successful. WCKY received 875 entries, and phone calls were made to: three soldiers in Vietnam; a soldier in Germany; a soldier in Hawaii and a daughter in Chicago. Crosley field, on June 9th, 1967, was called "Rosie Reds Night." WCKY presented Nicky Miller's rock & Roll band called the KYDS.

After three years with ABC network WCKY dropped it, and in 1969 the station was sold to Post-Newsweek Stations of Washington, D.C.

On April 22, 1970, in a newsletter from Helen Dudman, Director of Public Relations of the Post-Newsweek stations said "Robert B. Mitchell appointed General Manager of Radio Station WCKY in Cincinnati.

The appointment was announced by Larry H. Israel, Chairman of the Board. In his announcement he said: "Post-Newsweek stations have always attempted to provide the best possible news, entertainment and public affairs programming. We are confident that WCKY under Bob Mitchell's direction, will continue a long tradition of service to the greater Cincinnati area and will become a significant local voice."

The post to be filled by Mr. Mitchell has been vacant since Jeanette Heinze's retirement in February. Paul Miller, who has been assistant general manager of WCKY, will continue with the station as Area Vice President of Post-Newsweek stations. In this capacity he will serve as the company's representative in Cincinnati.

Mr. Mitchell, attended the Virginia Polytechnic Institute and started in radio as an air personality. They have a daughter.

The sale of WCKY also included the sale of television channel 10 in Miami, Florida. The other Post-Newsweek stations are WTOP-TV, AM, FM; Washington, and WJXT IN Jacksonville. On July 16, 1970 WCKY switched format to a pop-standard, easy listening sound, Carefully blended sounds-from Brahms to Brubeck, Streisand to Stravinsky-will be heard in 10 to 12 minute segments. Commercials will be clustered and news will be heard on the hour and half-hour.

On November 11, 1970, WCKY became the outlet in Cincinnati for the Columbia Broadcasting system. WCKY's local staff was enlarged and total news resources are being expanded. Changes made as part of an overall plan to place greater emphasis on news, according to Robert Mitchell, General Manager. Two new shows:

"Community Forum"-with Don Herman, a three times-a-week audience participation show and "Editor's Notebook" on Sunday afternoons. "Community Forum" will feature discussions with studio guests and comment from listeners who will be invited to call-in. "Editor's Notebook" will be a panel/interview program with local news editors discussing current events. Don Herman, of the WCKY staff, will host both shows. CBS news on the hours plus the 8 a.m. roundup and the expertise of such well known news correspondents as Walter Cronkite, Mike Wallace, and Charles Kuralt. WCKY also has news from its sister station in Washington. Commentators James J. Kilpatrick and Carl Rowan, are already heard over WCKY. The fairchild News Services also have been added to the news resources of the station.

So from a small boy's resourcefulness in promoting a "Magic Lantern" show for 2¢ and selling licorace candy to his audience, to a teen-age young man's successful managing of a theatre, to a \$18,000,000 sale of a radio station in 1969 is truly an American dream come true.

RECORDING-RECORDS-MICROPHONES STUDIO

In the infancy of radio broadcasting there were few recordings made and even fewer records themselves used on the air. Most of the programming was done "live!" There were several reasons for this, and I think first was the absence of an electronic means to record and playback records adequately. The earliest pickup arm for playing back records was simply to get the crude mike as close to the sound chamber of the phonograph as possible. Then someone attached a carbon button directly to the phono diaphragm and these vibrations rattled the carbon granules and reproduced electrically the sound so that it could be amplified. Next in reproducing arms was the magnetic type, which lasted for quite a while. Most of the records in the early days were cut in a vertical manner, called "hill-and-dale" cuts. Some were cut as they are today in 1970 in a lateral, or sidewise horizontal fashion. Some were cut from the outside-in, and some from the inside out. None of the records had run-in grooves for automatic changers which are so familiar today. Records were all at 78 RPM and most of them just on one side only.

It is a shame that so much of early radio is lost for this lack of recording. You can still obtain a copy of "Uncle Josh putting up the kitchen stove" for instance, but these were just comedy skits for home use that were also used by radio stations. "Moran and Mack" records, with comedy you can get a belly-laugh out of today are still available also. These were not developed by the radio stations.

There is no doubt that there was friction, at first, between this upstart called radio and the recording industry. Record companies felt, justifiably, that they had created the home entertainment business and could not understand why it should be cast upon the air for free!

Since early days of mankind it has been the goal to record, not only the written word, but the spoken word as well. These sounds could live forever it was thought. A radio program was in a sense an emotional experience, so transient, here this minute, and gone forever the next. Always followed by "The next number on tonights program will be..." which has been a constant regret to radio engineers for this sad state of affairs. This ephemeral quality is indeed regrettable for some of the notable speeches which have been broadcasts are lost. When speeches and other material are written down on cold paper to preserve them much of the flavor is gone. With recording techniques advanced enough for those days most could have been saved for another day, hour, or moment, and savored. Our own unique brand of humor could have been saved to indicate the culture of our background. When sound, with its inflections, pauses, intonations, are translated to this paper, too much is lost to get any real meaning from it.

In 1876 Alexander Graham Bell provided the thought that resulted in the invention of the phonograph by Thomas A. Edison in 1877. The telephone had been described as the "Most Valuable Single Patent in the world." There is a very definite connection between, or rather a consecutive thought, that of the electrical vibration transmissions over a wire and the recording of these same vibrations so that they might be played at will.

Children have tried to imitate the sounds of nature, birds, horses, chickens, etc. An attempt to record the human voice was made as early as 1490 B.C. by building hidden chambers in an elaborate statue erected to the God Memnon in a city called Thebes. Memnon was supposed to greet his mother, Goddess of the Dawn, each morning at sunrise. Later in history, in a testimony, Strabo in the year 7 AD admitted that some sort of sound was emitted. An earthquake in 27 AD destroyed the whole thing and when the statue was rebuilt its power of speech was gone. There is also the story of the Greeks and Persians who questioned their Oracles before making important decisions. These sounds were most likely made by hidden priests. Friar Roger Bacon built a "Talking Head" of a man and Herr Faber of Vienna reached the peak of automation with his talking man in 1860. But it is a far cry from building talking men to the actual "Storing of Sound."

Because machine shops were using lathes, and it was well known how to make them, it was reasoned that a small lathe, turned by hand would be ideal for making talking machines. A cylinder about 3 or 4 inches in diameter was constructed and with a round rod through its center serving as an axle mounted on bearings on each end which was turned by a hand crank. The cylinder was pre-grooved, or threaded, so that a mechanism with a sharp point would fit into these grooves and follow across the cylinder. The sharp point, or needle, was mounted in the center of a diaphragm. The diaphragm was pliable so that air vibrations could actuate it and thus move the cutting needle. It was possible to make an impression upon the threaded steel cylinder itself, so tinfoil was placed over it and this was soft enough so that delicate vibrations would be recorded upon it.

Volumes could be written, and have been, on the subject of record and recording, and I am only trying to touch on the subject so that some idea of history can be gleaned from it. All the early recording was done on a cylinder and for the most part the vibrations were recorded in a vertical manner. With the advent of the disc record by Emile Berliner in 1895 things changed. Although some recording was still done vertically the most important single improvement was that the disc could be mass produced whereas the cylinder could not be stamped out to make more copies.

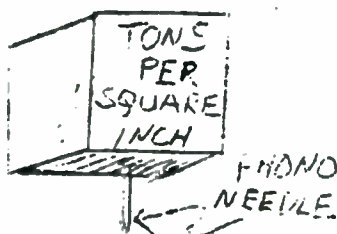
In the early days of broadcasting I once had a job working for one of the large recording companies making records in the shop. It is to be noted that it was early recognized that something had to wear out, either the needle or the record. Logically they made the needle wear first.

Now, needles came in packages which you could purchase in a drug store for a nickel. There were about 50 needles in one package and they were labeled "Loud," "Soft, and medium. The loud needles were thicker and they played louder than the others. They were called steel needles, but actually they were nickel-plated soft iron. They were called steel because the more expensive ones were made of cactus. You could get one play from each steel needle. Obviously they wanted to make the needle wear out first and that was the reason that an ingredient was inserted in the mix to make a record, or pressing as it was called, wear the needle instead of wearing out the record. This abrasive material was combined with lampblack, carbon, and several other ingredients, and we shoveled it into a wheelbarrow with an ordinary coal shovel. It was then placed on an ordinary hamburger grill and kept in a soft condition until needed. Record labels were kept on a nail. Each record had a top-side and a bottom-side. The machine that made the record was hinged like a book and stood on a pedestal

about waist high. The top and bottom were made of 2-inch thick steel with pipes running inside into which steam would flow when a lever was pushed. The recording room would cut a record on acetate blanks and when through recording they would gold plate them with a sputtering process and then weld a copper backing to this and peel it away. This formed what was known as the "mother" plate. Of course, the sounds were reversed on this plate from that of the original. After several other steps a final plate made from steel was cast and this was called the "stamper" plate. It was from this that a record was formed. These stamper plates were bolted to the machine, one plate on top and the other on the bottom. We took a hand tool called a spatula and cut the "cakes" on the grill into squares of 4 by 4-inches. One of these cakes was placed in the center of the machine. The center post was cleared by hitting it with your thumb so that it would protrude through the cake. This produced the center post hole in the record. Then two levers had to be pushed at the same time so that you couldn't have an accident and get your hands caught in between the plates while the machine went through its automatic cycle. After about 60-seconds the machine would open its jaws and if you were lucky you had a record. I say lucky, because sometimes the cake material would not press out evenly. This record was then placed on a spindle which held fifty records. After the spindle was full it was taken to the finisher machine which smoothed off the edges.

All the commercial records available to the home were made in this manner. About in the 1928 an electronic means became common. Before this era all the records were made acoustically. That means that the actual air vibrations engraved their motion on the cutting blank. To play it back, in the absence of amplifiers, meant that these faint engravings had to be amplified. This was done by a mechanical and acoustic process in the home phonograph. The vibrations were recorded laterally, or horizontally, on the record and the part that held the needle was mounted vertical so the needle could follow these excursions. The needle was held in place with a thumbscrew and this mechanism was linked through a system of levers to a mica diaphragm about 3-inches in diameter. Mechanical gain, or amplification, was obtained this way. The diaphragm was arranged on a double swivel arm. One swivel was up and down and the other was sideways so that the arm could travel inward with the record grooves. The diaphragm carried the sound through its hollow arm downward to a large horn. This horn would be almost ten feet long if it were straightened out. Instead of being straight it curved inward upon itself so it could be enclosed in a small cabinet. Where the tone arm fed the sound into was called the "mouth" of the horn. This small mouth flared out to a larger opening over one-foot square. This is the method to obtain an acoustic gain. Altogether the combined gain of the mechanical and acoustic systems made a comfortable room volume. For a volume control all you had to do was to open or close two small doors on the cabinet arranged over the horn opening. This mechanical tone-arm was heavy, almost one-pound. Even with magnetic tone arms a little later there was always a weight of at least one-half pound on the record. When you consider the record needle was .003 inches, or 3 mils, and you multiply this up to how much weight was on a square inch basis, you will find that it violated the building code! If you put enough of these tone arms on a square inch of a given record, you would find you had a combined downward force of 1,000,000 pounds! Another way to say it would be 500 tons! This may be hard to understand by 1970's standards where the record is made of very soft, smooth, vinyl, and the tone arms only take a force of 1-gram to track across the record. This will give an idea of how much progress has been made in recording.

In the beginning of the 30's broadcast stations began to use machines like those used in the recording industry itself. They were made by such people as Rek-O-Kut, Presto, RCA, and others. Most were used at 33-1/3 RPM. The old style 78 RPM records were all there were, until after WW-2 in 1945. In that year a war started on the economic front called the "Record War" or the war of the speeds. RCA was pushing the 45 RPM single play record and Columbia was encouraging the use of its 33 RPM long play record. Both used the new one-mil or microgroove recording technique. This meant you could get 3 times as much playing time as with the old 3-mil cutting needle. It is not my purpose to write a technical treatise on the subject of recording. I only wish to touch upon certain pertinent points that may have become lost in the modern world, where we are surrounded by a mass of highly scientific equipment.



In the early 30's some broadcast stations found a use for recording some material. All the announcing was done live as a rule in any large station. Standby announcers were always on hand to read spots or other announcements or to introduce a musical number. All the equipment available, regardless of who made it, was of the same type used for recording. The blank disc were coated on an aluminum base using a special acetate which flowed smoothly, and evenly, on the surface when the blank was manufactured. If there were air bubbles or other imperfections they were sold

only for home use. As a rule there were three grades of blanks, depending on the smoothness of the surface. The labels were done in three colors, one for each grade of perfection. Red for the best, Yellow next, and Blue for the poorest grade. Prices were according to the grade. These came in 6-inch, 8-inch, 10-inch-12-inch, and 16-inches diameters. Broadcasting used the 16-inch size. These recordings were known as electrical transcriptions, or simply ET's. The recording head, or cutter, traveled overhead across the record, usually from the outside-in. But by inserting a different leadscrew you could cut from the inside-out. A logical question arises here "Why not cut all records in the same direction?" The answer lies in the fact that due to the large cutting needle, or stylus, diameter of .003 inches, we could only cut 112 lines per inch which meant that the total recording time on a 16-inch record was 15 minutes. For recording a half hour show it was necessary to use two machines. We fed audio or program material into both machines at once, but only one cutter was making a record at any given instant. If we cut the first record from the outside-in, then the second half was cut from the inside-out. If you think about this for a moment you might see why this was necessary. It must be realized that the speed of travel on the outside diameter of a 16-inch record is greater than on the inside where the diameter becomes about 6-inches. This is called lineal velocity. This speed of travel is known in the trade as "lateral" or "diameter" differences. What this means in regard to fidelity is that more high frequencies are recorded on the outside, or beginning of a record, than are recorded on the inside, or end of the record. As a result when a 30 minute show was recorded the quality kept getting worse and worse as the inside diameter was approached. A gradual loss of higher frequency response which was quite noticeable if you were to end on the inside of the first record and change to the second record in the middle of a program you could easily hear this difference. To circumvent this obvious difference between records we pulled a fast one and not a soul was ever the wiser. We played, or recorded, the first record from the outside in and the second from the inside out. In this manner the change between records was not noticeable at all. As a matter of conversation it is to be noted that these recordings were of excellent quality, very quiet as compared to a pressing or ordinary record.

There were no abrasive materials used in these ET's, on the contrary they were made of the smoothest material on hand. There were other records made using pre-grooved steel blanks. some were cut on aluminum, some on paper coated with shellac, and some on celluloid. During the war years of 1941 thru 1945 glass based disc were used because of the shortage of aluminum.

When a studio engineer played back a noisy record or group of records with an announcer talking inbetween records, it was the custom to have a record made with no sound on it EXCEPT SCRATCH! About this time, you think I have lost my marbles to deliberately put noise on the radio! The reason was due to the psychological. When you are hearing a given record, of something you like, and there is record-scratch on it, your ear will automatically discard this unwanted noise and hear only what it wants to hear. When the record stops and an announcer begins talking from a very quiet studio it is too abrupt a change. That is the reason the noise was kept underneath the entire program so that there were no changes in material to distract the listener.

A great deal of this same thing is done with telephones. It was learned early that you only have to transmit a fraction of the entire speech range to obtain intelligibility. For instance, if the entire speech range is 100 cycles to 6000 cycles, most of the intelligence is only in the range between 500 to 1500 cycles. Your own ears insert the missing frequencies and form an image of the person talking.

The speed difference I spoke of in regard to the diameter differences on the outside of a record and the inside can be more readily visioned if we relate it to something more familiar to all. The automobile wheel is a common sight and we all know that the larger the tire size, the more ground it will cover in one revolution. The larger the wheel the faster is its lineal velocity and the converse is true, the smaller the wheel, the less ground is covered per revolution. To relate to frequency response it is an axiom in any type of recording the faster the recording is done the higher the fidelity. Therefore the outside grooves were better than the inside grooves because the higher frequency vibrations were lost toward the center of the record.

There was a secondary reason for cutting from the inside out versus outside in. A disc recorder is in essence like a metal lather. There are chips, or threads, cut from the recording blank. If you were to cut from the outside in, these chips are constantly getting underneath the cutting needle and snarling up causing the needle to jump grooves. Whereas when cutting from the inside-out the thread and the cutter are moving apart from one another. This made the chip fall away from the cutting head and not fall underneath it. Regardless of how the record was cut it was vital to get rid of the chip as it is highly flammable. Use was found for the waste cans discarded from hospitals that had a lid on them which opened with a foot pedal. If the chips were not kept in this way they would ignite by spontaneous combustion usually at night when no one was nearby to put it out. Every precaution was taken to see that this never occurred.

The history of recording is a real story, and one that cannot be told here. I am only trying to cover the formative years of radio broadcasting, and to provide a brief outline, in a rough form, to show the sound-recording development.

The so-called acetate disc, or instantaneous disc abbreviated to ET, is still used in modern-day broadcasting to a limited extent. The tape cartridge predominates in use with most stations because it can be used over and over again simply by using a bulk eraser which obliterates all sound on the tape including the automatic cueing tone for instant start and stopping of the cartridge tape. These tapes use what is called an endless loop or "Moebius" loop. It keeps going around and a tone is recorded on it when the other sound commences to tell the machine when to stop as it goes around. The tapes lengths come in different lengths: 30-second; 60-second; 10-second, etc.

All tape recorders, both reel-to-reel and cartridge type, had their beginnings in the wire recorder. A very brief history of magnetic recording would not be remiss at this juncture. Magnetic recording of sound is not a recent invention, contrary to modern day thought. The development began with a wire recorder. It was not known at the start that it was impossible to obtain reasonable fidelity without using a high frequency current called "Bias." It was much later that this "bias" became known. The first wire recorder was developed by Valdemar Poulsen of Denmark before 1900. He called it the "Telegraphone" and it was sold and used for commercial purposes to some extent in the ensuing years. A few were tried in America but no extensive use was found until after Pearl Harbor when the U.S. Navy used some as did the Air Corps. After 1945 some of the mechanical parts were manufactured in the U.S., but the electronic circuits were a mystery until some of the German Patents came to light. WEBCOR in Chicago manufactured a tape deck and gave you a small circuit which you could build your own electronics circuit. You did have to wind your own bias oscillator coil however.

Poulsen had patented his recorder in 1898 after five-years of experimenting.

Poulsen's device did record and playback on wire, but as it had no means to amplify the end result was a very low level of audio. He had demonstrated it at the Paris Exposition in 1900 and won the Grand Prize.

Shortly after that great interest was shown in America. The American Telegraphon Company was founded in 1903. It was Poulsen himself who invented a method of using a DC for bias in 1907. This improved the quality immensely. These machines were used mostly for dictation only. When DeForest invented the vacuum tube it made the amplifier necessary to build up the sound. AC methods of bias came about and this combination of a suitable amplifier system made satisfactory recording. It was said that Kurt Stille of Germany was the "Henry Ford" of recording just as Poulsen was known later as the "Tom Edison." By 1920 several machines were being made, some even with a magazine loading principle. It was a man by the name of Blattner who saw the possibility of using tape as the answer instead of wire. He worked on his steel tape idea and thought of using a magnetic material in a powdered form, but for some reason he dropped the idea. In 1927 a man by the name of Pfleumer made the suggestion that is seemed reasonable to use a powdered magnetic coating on a cloth tape. Trouble was the powder would fly off when it passed through the head mechanism. In Germany the AEG company and I.G. Farben were working on the problem. AEG produced the machine and Farben worked on the tapes. In 1931 steel tape seemed to be the only answer.

S.J. Begun of Germany who worked with the Brush Development Company migrated to the U.S. in 1935 with his Lorenz machine to continue his work. It was the German Magnetophon company in 1935 which used plastic tape instead of steel. Bell laboratories developed a steel tape also and even demonstrated a stereo system on steel at the New York World's fair in 1939. The steel tape was made from a material called Vicalloy and cost about \$1.50 per foot. Brush Development company began work on what became their "Soundmirror" and the Webcor tape recorder was made in 1943 after Mr. Begun leased his work on coating a wire to the Webcor company.

In September of 1944 Mr. Begun convinced Minnesota Mining company enough to help him develop a thin tape with a coating of ferromagnetic powder on it. A Dr. Oace of the 3M company began a series of experiments which did prove difficult because no machine was as yet made to use it. By 1946 companies like Magnecord, Audiad, and names like John S. Boyers, Russ Tinkham, J.L. Landon became famous in this field. In the field of motors for the drive system there were other names: Alex Pontiatoff, Myron Stolaroff, Harold Lindsay, and Charles McHarry. The Ampex electric company was looking for a new produce and when a man named Mullin joined the company as a consultant, Ampex was in the recording business.

In 1950 when the Magnecord company introduced the famous PT-6 reel-to-reel plastic tape recorder it did \$45,000 worth of business at its first showing at the Los Angeles NAB show. This unit became known throughout America as the "Workhorse" of the industry and ushered in a new era of sound recording.

U.S. World War II wire recording technique was definitely non-professional quality. When our armed forces occupied Germany, they found that tape recorders were in wide broadcast usage, and that the results were far superior in fidelity to those obtained with our wire recorders. The use of a plastic tape coated with a thin layer of fine particles of magnetic iron oxide had made it all possible. Most of the American machines stem from the design philosophy of Germany. In 1970 America leads in both the development of the machines and the tape material.

The one factor that helped both Germany and America was the revival of the high frequency bias technique. It is here that varying voice currents are applied to the recording head simultaneously with a steady current of High (supersonic) frequency. This cuts down on the background noise and distortion as compared with the older DC method. In 1921 Carlson of the U.S. Navy received the basic patent on high frequency bias.

There were two main factors that kept the wire recorders from professional success. Mechanical breakage and the fact that the wire would not always present the same surface to the head. The wire would turn in a different position as it was spun across the head. The wire was about the size of a human hair, exceedingly fine. It was weak and easy to tangle in handling. A kink inevitably developed into a wire break later on, and a broken wire often leads to a "bird's nest" snarl which may be impossible to untangle. Tying the broken ends together in a knot is not easy when the wire is so fine; and the wire may break at the knot because it has to be annealed (softened) to make knot-tying possible. Such splicing difficulties have made editing a wire recording impractical. The rotation of the wire meant that the reproducing pole pieces touched its surface in a different region than that used for recording and that led to a loss of high frequency response-and such rotation during winding cannot be completely prevented.

STUDIO EQUIPMENT

For the most part all the audio equipment used by early broadcasters was manufactured by Western Electric Company. As their work had to do with audio on the telephone systems of that time it was quite natural that they should be the first to make use of audio amplifiers. Public address systems were coming into being and it was this equipment that came into use in broadcast stations. The amplifiers were usually housed in wooden cabinets with metal handles for ease in transporting from one location to another. These were set up on tables for radio use. One phase of radio that dictated what type of audio was needed was the transmitter design. Those transmitters that were built by the engineers themselves used a system of modulation called "Heising Modulation." Audio was applied in series to the radio section and the power supply in such a manner that the same voltage was applied to both the audio amplifier and the radio frequency stage. Those few transmitters that were manufactured were made by Western Electric Company using a low level system of modulation and using class "B" amplifiers following the modulated stage to boost the power output.

The first microphones were telephone transmitters. These were small metal containers with carbon granules and with a metal diaphragm that vibrated with the sound and this compressed the carbon granules and thus changed the resistance of the unit in accordance with the sound vibrations. This resistance change changed the gain of an amplifier and the sounds were thusly amplified. The next step was to use two of the buttons in an arrangement called a "double-button" mike. The studio engineers used to make sure that the battery current was equal on the two carbon piles by inserting a meter in each leg and measuring the current. If they were not equal the granules were either removed or added to each coil to make them equal. After a few hours of use the carbon would become packed and no sound would come from it. In that case a technique called "petting" was used. The mike was held so that the stand was horizontal and a light, tapping motion by your finger would re-arrange the granules so they would work again. The mike was usually carried in a velvet cloth for protection when going to a remote broadcast.

Condenser mikes were used next, and in fact the same principle is still used today in 1970. A simple description of it would be to say that it was composed of a fixed metal plate and a movable metal plate. The two plates were separated by perhaps a thousandths of one-inch. The sound vibrations striking the movable plate would thus change the capacity between the two plates and this is where the name "condenser" mike came from. These changes were extremely feeble and had to be amplified many times before they were usable on radio. Later the RCA company developed the "Ribbon" mike and used it on their model 44. This was a superior mike and probably the best ever devised for large orchestral groups. It had no use outside of the studio because it was subject to wind damage and other ills. On speech use it was far too bassy when worked less than three or four feet distance.

The condenser mike proved to be the real quality mike for large musical groups such as choirs, symphony orchestras, or choral groups. Most radio stations had a large studio for these groups and they either suspended an RCA 44 from the ceiling or used a condenser mike on a floor stand. All the ribbon mikes were delicate to handle and subject to damage by vibration if not handled properly.

There are ample books on the subject of microphones available, and other books on their use in a studio. This is a full study in itself. It is not within the scope of this book to go into detail on this subject. Studio work in either a recording studio or a broadcast studio is a full time occupation and it is truly an art. It is closely related to that of music itself and the study of acoustics. This is one phase of the broadcast business that has always been sadly neglected by all concerned. It is pointed out a difference exist in the approach to microphones and sound in general between the record companies and the broadcast companies. Radio usually strives for flat response and makes no particular effort to achieve a real musical balance. The recording studio, on the other hand, uses tone controls and other audio devices to get an effect they want regardless if it a true sound or not. Persons working in radio broadcasting rarely make good recording engineers. At least this is my impression after so many years of being in or near radio broadcasting. Most of the real sound is found on records which were done in a recording studio and all the broadcast station is required to do is to have good phono tonearms etc. plus good audio equipment to reproduce these sounds. In other words they did not capture the sounds in the first instance, they only reproduced them.

An interesting sidelight on microphones happened in 1941. The scene is Mason, Ohio at WLW. Lewis Crosley purchased a farm near the transmitter in 1941 to set up a working farm operated by farm people who talked on WLW farm programs. The show was called "Everybody's Farm," and it served as the center of WLW rural programming.

Jack Gray said of it: "The Little white studio hosted countless farm programs and thousands of rural visitors over the years. This special microphone became a famous part of the WLW farm activities." Jack was telling about a mike encased in an ear of corn. Jack said: "When the need for a distinctive mike arose, R.J. Rockwell, technical director, asked Earl Neal, the tenant at Everybody's farm, to bring him the largest ear of corn that he could find, and then an aluminum casting was moulded and machined out to hold an RCA "Salt-Haker" type mike. After painting it to look like an ear of corn it was put in service. The little white studio, the old farmhouse, the farm tenants, all have passed from the scene and Everybody's Farm is just a pleasant memory and a bit of nostalgia now."

One of the most important attributes that a studio engineer can possess is that ability to listen as a radio listener would. He must learn early that he must rely on his judgement alone, and not upon one of the performers. What this means is that when a recording is made of an orchestral group he must not ask, for instance, a piano player to judge the recording. The only thing the piano player hears is himself, and this applies to all the other musicians on their instruments. Each only hears himself, and not the whole sound of the group. This is a failing of most so-called artist, they are egotist and think the whole world wants to hear them alone. An engineer must coordinate the whole sound, and program, so that it is truly integrated into one show. If this is not done, you end up with a group of people each trying to outshout each other. In many ways a studio engineer, at least in the great days of radio, was an artist in the finest sense of the word. It certainly is not like today in the 70's where the use of cartridge tape recorders enables him to mix, at his own convenience, sounds of the spoken word and mix it with music later. There is something frantic in today's studio that is not healthy. For the most part people involved in radio broadcasting are not really listeners themselves, so how can they impose their will on somebody else?

A summary of events in radio would disclose that the radio studio had made remarkable progress in good sound. New mikes, audio equipment, compression amplifiers and new techniques all added up to high fidelity. Prior to Pearl Harbor on December 7th, 1941, also that radio set manufacturing had progressed on two front. First, the actual production methods had made giant steps forward, and secondly circuit developments had come pell mell. The American radio set was truly a work of art, whether you looked only upon the magnificent cabinet work, or listened to it as you would a musical instrument.

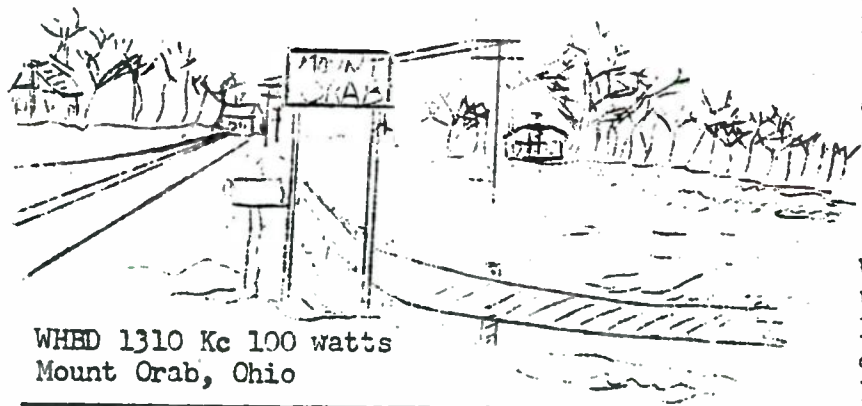
What I'm about to say is not directly related to studios, but on the subject of the radio receivers used in the average home in Cincinnati. After all this is what radio broadcasting is all about. The goal is to bring entertainment into the home. Without the receiver there would be no need of any broadcast station.

With the bombing of Pearl Harbor by the Japanese production ceased at both Crosley and Midwest radio companies. Both companies turned immediately to war work. Midwest became almost exclusively devoted to the U.S. Navy development work on RADAR and Crosley, on the other hand, seemed to have more to do with the Signal Corps of the Army. Field transmitters and receivers were built for tanks, jeeps, and for aircraft. Both plants tried to return to their old ways at the conclusion of the war in 1945 only to find that things were different. Television was here, due in large part to the impetus of war work, and this meant different production techniques had to be worked out. Radios were made as they were at the close of production in 1942 but most of their effort were diverted to building TV receivers. Crosley built many models, ending with their Super-V chassis. Crosley sold out to AVCO in 1947 and by 1955 all home devices for entertainment were discontinued and the plant moved to Evendale, Ohio, where only government contract work was done. Midwest continued to make radios and television until the same mid-50's when companies from other cities made their own Kit television receivers and set up offices and showrooms in Cincinnati. Probably the largest kit TV company was one called Transvision with offices on 7th street. Later another was formed in Michigan and opened an office in Cincinnati in 1970 called Heathkit. In short the old ways had gone and the mail order business had come to the end of the road, at least to the extent where a factory could be devoted exclusively to that form of selling.

John Wolking, who now works as an engineer for station WKRC and also has his own recording studio called General Sound, recalls all the early radar work done at Midwest radio. He had taught radio classes there and many inventions to do with war production were accomplished at Midwest. They expanded their work space and offices to other buildings in downtown Cincinnati. It was 100% war work.

THAT STATION AT MT. ORAB, OHIO-WHBD (became WPAY)

1930



A logical question: "What has Mount Orab to do with Cincinnati Radio?" Well, radio knew no boundaries, and WHBD was listened to by many Cincinnati's in the early 30's.

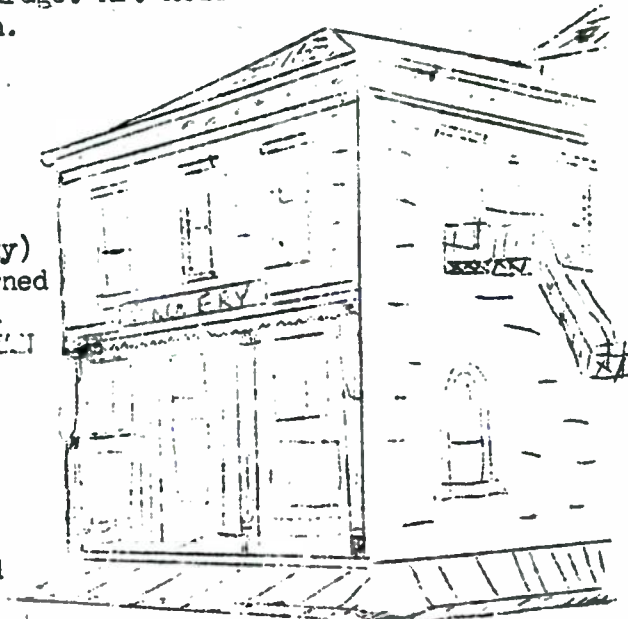
Sometime around the year 1929, or so, the original "Powerful Lil ole 5-watter" was born. Was it "Rosedale" or was it "Grinders switch?" Funny, radio stations to me didn't have a real geographic location, they only existed in my mind. Maybe it was just a

mark on my radio dial, and nothing else. That's what radio had that no other medium will ever have again. Just a figment of my imagination, it only created a vision for my mind's-eye alone.

Once upon a time I worked at a 250-watter called WPAY. It was located in Portsmouth, Ohio, atop the Shelby Shoe Company building on Gallia Street. The radio tower was on the roof and the studios were on the second floor level. I didn't know it at the time, but WPAY was an outgrowth of the old WHBD at Mt. Orab. Over twenty years have gone by since I worked there and I am now listening to the voice of the chief engineer, Maurice Meyers, as he tells me about it on a tape recording. Like Lum 'n' Abner's announcer says: "Let's listen in and see what is going on down in Pine Ridge tonight. This is Maurice Meyers recording for Joseph Rice of Cincinnati, Ohio. Some thoughts, maybe memories, of the radio station at Mt. Orab, which got blamed for the call letters WHBD. I recall hearing the Mt. Orab station when I

lived in Galion, Ohio, a distance of about 150-miles. This was in the late 20's or thereabouts. I do recall hearing them on a number of occasions.

WHBD was originally built by a Mr. F.P.(Doc) Moler. I think at that time they were licensed to operate with 50-watts of power. It was purchased by a Mr. M.F. Reuben and moved to Portsmouth in April of 1935. For the rest of this article I will try and describe it as best I can. Having once heard this station I couldn't wait to see it. One day I got the chance to make the trip from Akron to Cincinnati and I made it a point to go through it. This was about 1930 that I did this. Well, we had no trouble in locating the station as it was right in the center of town and you could see the two windmill towers clearly. One tower was in front of what appeared to be a general store, and the other out back near another small building. At this time I don't really know if it was a general store or some sort of auto garage. Mr. Moler did have several different business enterprises in this town. Anyway he did own this store and over the radio station he plugged his merchandise and I think he did a pretty thriving business. We went to the station, and when I say we, I mean an announcer who was with me. The announcer, who had worked at the old WJW station at Akron, was R.C.(Rocky) Force. He used to be a tobacco salesman turned announcer back in Mansfield, Ohio. The call letters there were WMAN. Take that back, it was not WMAN, it was WJW also in Mansfield. I was mixed up, WMAN is the call letters of the present station. Anyway, we went to look at the station and we did find it in this store.



The General Store

From the outside of the store we could easily see that this had to be the radio station because we could see the towers and the lead-in wire going through one of the windows. We knew the transmitter had to be nearby. In the back part of the lot, near a smaller building, was the second tower and between this tower and the one on the front was strung the horizontal wire for the antenna. If I recall it was what was known as an "inverted V" type antenna. The front building was nothing more than a one-floor type building.

Well, we proceeded into the store and lo and behold, way back in the far corner of the room was an announcer playing records, right out in the open! No sound proof room or anything of that sort. There were no partitions to separate the announcer from the rest of the store. It didn't resemble any radio station I had even seen before. I don't know what vintage the phono-turntable was, but it used one of the small home-type "Green-Flyer" motors. The phono tonearm looked massive, perhaps one of the early, very heavy, RCA magnetic type arms. Of course the records were all the older 78 RPM type. The space devoted to the radio station was just one corner of this huge room. In this corner was placed an old ragged rug and sitting on this was a pot-bellied coal stove and a small table. The table held the phonograph and a homemade amplifier which had a few knobs on it. I could see a table stand holding a carbon-button microphone. They simply placed this table mike on a wooden flower stand to pick up the various orchestras who migrated into Mount Orab to play over this radio station. I inquired about the transmitter and I was told it was in the other small building.

This transmitter building did not actually join the main building where the studio was. We couldn't find anyone around but we did see the transmitter running merrily along with its tubes all aglow and a light humming sound coming from the power transformers. We did some more looking and finally found the operator out



Home of WHBD-Mt. Orab, Ohio-1930-notice hand pump for gasoline-horizontal antenna
Inside a coal-burning pop-bellied stove old phonograph and one microphone-yet all
the musicians listened to and performed over this station traveling through
the Cincinnati area until 1935. Probably this station had more live music than
any other radio station in the whole metropolitan area....

in the garden hoeing his corn! Casually he ambled in, and then showed us around
the station. The transmitter was similar to the type that we built later for
WPAY. It was mounted in three racks sitting side by side. These were made from
angle-iron and aluminum panels on the front. It had a vague resemblance to the
one I found later, in 1936, at Portsmouth, Ohio. It could have been moved up
here at that time. Each cabinet, or rack, was roughly two-feet square and about
six-feet high, and divided into three compartments vertically. One compartment
was almost a cube-two by two by two- the main section contained the oscillator
and power supply. The oscillator was one that used the old type 46 tube and the
crystal did use an oven to maintain the frequency more or less constant. The
crystal and the electric oven were mounted inside a balsam-wood container for
insulation. The next stage used a type 47 tube, although I'm not positive at
this time. The final tube was a 203-A which was considered a 50-watt size.

This was modulated by a pair of 212-D tubes. It used a system of modulation
known as "Heising." One cabinet section contained the RF amplifier, and the
other one had the modulator in it. When we raised the power to 100-watts at
Portsmouth we used two UV-211's modulated by a pair of 212's in parallel. One
section of our cabinet had the RF amplifier in it and the other housed the
modulator along with the filament transformers and that was all. In Portsmouth
the power transformer consisted of one of those pole transformers used by the
electric company. We did use mercury-vapor rectifiers, type 872. We had a rather
unique method of adjusting the power of this transmitter. We installed a bank of
regular light bulbs, 200-watts each, connected in the primary of the power
transformer. Screwing the lights in the sockets for a change of power. There were
at least ten to twelve light bulbs in series/parallel and we could get all kinds
of arrangements to change our power up or down accordingly. The power supply at
Portsmouth actually took up a whole wall space. I don't recall seeing it at Mt.
Orab though. I would say it was similar to ours and protected by a door switch
to act as a safety.

Even in 1936, when I started at WPAY, they had a modulation meter. These were
required since about 1935 and the first one was the General Radio Model 731-A.
The WHBD station didn't use one at all. They had worked out a scheme to calculate
the increase in antenna current with modulation applied from the studio. Roughly,
and theoretically, it should be about 22 percent for 100 percent modulation. The
old RF meter would swing all over the place and it became the custom to push it
until it was always reading 25 to 30 percent.

This went on all the time so you can imagine why and how the early broadcast stations got out of their backyard with modulation like that. They were likely a combination of AM and FM together! To some extent more FM than AM. They certainly had the peak power in those days. Boy, it would really modulate, and if you couldn't get an increase of antenna of 25 percent you were just not doing the job. I had a hard time convincing them when we did get the modulation meter monitor in Portsmouth to hold the percentage modulation down, in order to meet the new FCC rules. You can imagine what that monitor looked like if we were to feed the old percentage of audio into it, it just stayed up at 100% all the time. That's all I recall of WHBD, and I did hear them from my home in Galion, Ohio, in the daytime. That's a distance of over 150-miles too. Even today that is good distance for any transmitter and especially with the poor receivers we had in those days."

EAR PHONES



Let's take a look through the "big picture" window of radio. In the formative years, and I use the word "formative" with tongue in cheek, radio did not know its true identity. In other words it had no way of knowing what the impact was on the listening audience. The whole thing was so new that it took almost ten years, or the whole period of the 20's to get beyond the toy stage.

As I had said in other chapters "Radio had to create its own performers" most of whom were former vaudeville stage artist. Most of these acts were geared to vision: jugglers; slight of hand; tight rope walkers; animal acts etc. Those other performers who could appeal to the ear alone had a problem. Most of these performers just couldn't make it on radio without the visible audience. Without this audience, stage performers simply had no

method of knowing the reaction of their audiences. If they told a joke, there was no response from the microphone so their timing was off. Without a live audience they had a real problem, but everyone was fascinated with this radio thing. Musicians were anxious to try it, and from this group of people radio drew heavily. Dozens of small orchestras wanted the chance to be on radio and would travel miles for this opportunity. Let's turn back the clock to 1930 and listen to a man describe one of these orchestras. "This is Howard House of Covington, Kentucky, with a few memories of the Mt. Orab station. I went up to WHBD with my brother-in-law one night. He had an orchestra back in the early days. I don't recall exactly how old I was at the time, but, perhaps 15 or 16 years old. That would have been in 1926. We were supposed to have and "On the air" appointment on a program one night. We were late, and regardless of this fact, we found the whole town closed up. Not only was the radio station dark, but we didn't see one light on in the town. We found out how to get in touch with the man who was then in charge of the radio station and got him to open up. As soon as this man opened up the radio station the whole town came alive. It was as if a pre-arranged signal had been given. I suppose the town's people were accustomed to this sort of thing. I did notice drapes made of velvet that hung from the ceiling to give a studio effect. It seemed to be a pretty nice studio at least for that year. While the orchestra was setting up the radio people had a local guitar player and a yodeler perform to fill in the time necessary before the band was ready to play. It came our turn to be on the air and the announcer said "Ladies and Gentlemen we present an orchestra for your enjoyment. They have traveled all the way from Covington to be here tonight." Howard then said "We played, and when we were through the station ceased broadcasting, all the lights went off in the whole town. When we left for home the town was just as we had found it, all dark. The radio station was off the air, and the whole town was asleep."

This was a common occurrence for radio in those days. A sort of haphazard method of operating. To install a better insight into radio in those early years let's now listen in on one of the early announcers.

Hi, this is Nelson King. When I go back to my earliest recollections of radio, I suppose I go back as far as all those in my age bracket, which shall remain un-announced, but it's on the shady side of fifty I might say. I've built my share, or tried to build my share, of the old crystal sets with the catswhisker and little piece of galena crystal, the mother's oats box wound with fine wire for a coil. I think my first recollections of commercial radio, as such, is when the big battery-powered units first invaded the homes. Believe me you had to have a whole room to house this radio. Almost big enough to put a radio-transmitter in. What with the various "A" and "B" batteries, wet-cells, and dry-cells, and the big "Morning Glory" horn speaker. At first we had a separate cabinet to house these units in and another one with the tuning coils, tubes, etc in it with six or eight dials to tune in a station so that it was audible. As I went through high school, and grew older, the superheterodyne sets began to hit the market and then the electric radios started coming into the furniture stores too. They were all contained in one cabinet now; high boys; secretary desks, and other cabinet styles. Then the local telephone company thought they would get into the home entertainment field and they started something new. They used their telephone wires to bring programs right into your home. They had a regular schedule which they published for the subscribers.

In those days if you made \$35 a week you were considered an executive back in the year of 1926 or so. Then as the years progressed we found the radio sets equipped with a thing called an "Electric Eye." It was quite the thing in those days to sit up all night and listen to the great dance bands from across the country. From Chicago, from New York; Detroit; New Orleans; San Francisco; Los Angeles; Hollywood and all the places between. This was the "thing" to do for the youngsters, we had no "tube" to watch but we certainly had a "horn" to sit and listen to. On Saturday nights we got a party together and we would sit in front of the radio and listen to all the great musicians playing in bands as the networks fed the programs from the east coast to the west as the time zone progressed across the country.

After I graduated from high school there began to be talk that a radio station would be built in Portsmouth. Oh, I forgot to say that when we listened to the dance orchestras along about 2 or 3 in the morning, that's when you heard the great music because that was the days of the big bands. Getting back to the Mt. Orab radio station now. We found that this station was being moved to Portsmouth. Mt. Orab was a little country town and the talk began about in 1933 and the tales grew and grew about this new station. Then we heard it was finally going to happen and the power would be a powerful 100-watts. Boy that was a dandy, and finally it was announced in the newspaper that this situation was coming about. The "Vee Vee" corporation of Cleveland had purchased the Mount Orab station which had been located in a little country general store. Mount Orab is northeast of Cincinnati through Batavia on route 74. Well they moved this station to an old dance hall which also had been a skating rink and what have you. Some of the announcers came down from Columbus because this company also owned WAIU there, if my memory serves me correctly. Floyd Mack who later did the Telephone hour was one of those who came down and Bob Clement was another. I worked with Bob quite a few times in various stations since then. Both of these men were fine announcers, believe me. The boys were hired for the magnificent sum of \$15 a week. But, there was a balcony with rooms, like apartments above the dance hall and they were given to the announcers in addition to the \$15 along with a meal ticket in a little corner restaurant. That was big money that was paid to radio announcers in those days. I started as a salesman for WPAI, the year was 1934 and I was paid \$10 a week which increased if I sold more than that. Then I finally got into the program end and got the sum of \$15 a week as an announcer. I left there in 1936 and went to Huntington, West Virginia. I worked at good old WSAZ and stayed there till after the 1937 flood. That would be in June after the flood of 1937. The flood was in January of 1937. Incidentally the 1937 flood was the turning point for the little old 100-watter in Portsmouth. The Shelby Shoe company along with the Wheeling Steel and Williamson Shoe company, was one of the three big employers in Portsmouth at the time, and they had hundreds of

people on their payroll. Since the town of Portsmouth was completely inundated at the confluence of the Scioto and Ohio Rivers, and when it became absolutely certain that the water was going to come in and cover the whole downtown area, The Shelby Shoe Company found a need for getting in touch with its employees. They were needed to help move the entire stock of leather used for manufacturing shoes. This leather was stored in the basement. Through the continued series of emergency announcements they were able to garner enough voluntary help that was desperately needed to move this stock to higher ground and out of the water.

They did get it moved and didn't lose one bit to the rising waters. Consequently, when the flood subsided, the Shelby Shoe Company was able to get back into production again. This production output was somewhat limited, but the main thing was that their supplies were still there. Out of gratitude for the wonderful job which WPAY had done, the Shelby Shoe Company built some beautiful new studios on the second floor of their building on Gallia Street and with a brand new radio tower sitting atop their factory too."

To capture some of the flavor of those wonderful years let us now listen to several other persons who remember going to the Mount Orab radio station.

"This is Paul Evans and I work for the City of Cincinnati as a radio operator at the police radio station "X." When I was younger we had an orchestra called "The Fairfax Rustlers" and at noontime we would all make the journey across the levee to Route 74 up through Newtown and find our way on out to Mount Orab. I played the mandolin and the rest of us formed a sort of country-music stringband. We arrived shortly before noon each day and setup our instruments and we would wait until the announcer told us to go ahead. We got letters from all over telling us they liked the program. We tried to get a sponsor for the show, without much luck. We finally had to give it up as the travel was too much of a burden."

Another person who recalled those early days is George Pink, who now in 1970 is the owner of a portrait photo studio in Erlanger, Kentucky. Although originally from Warsaw, Kentucky, he was reared in the Delta Avenue section of the East End of Cincinnati. He lived on Tusculum Avenue and his father was a music teacher in that area. He could recall the names of persons connected with the music business. Henry Filmore, who wrote hundreds of band numbers, was one person he remembered along with Mr. Surdo the music teacher at Withrow high school and Mr. Walter Sayers the music teacher for Norwood high school. Mr. Sayers was a wonderful teacher and he had taught me many things about music appreciation while I played in the bands and orchestras in the school. Well, George Pink's father had a large orchestra, even for those days, of fourteen pieces. They called themselves "The Tusculum Entertainers." On a Saturday afternoon they had a program over radio station WHBD. It was an hour long show and they played mostly classical music and some of the popular songs of that day. Sheet music could be bought in a ten-cent store and even in drug stores because many persons played piano and some even bought the music so they could get the lyrics. Every time I would go to the ten-cents store I would hear three or four pianos going at the same time, all playing different tunes. The reason was that people would see the sheet music and didn't know how the songs went so they simply took them over to the nearest piano player and he or she would play the tune.

So we have touched on the early days of radio in Cincinnati. It is our hope that some of the flavor of the times has rubbed off, so to speak, and a better insight into radio's golden era has been gleaned. Don't go away, cause we got lots more to follow. Anyway those were wonderful years, the excitement of hearing a new program, new circuits to try, radio books to look through, antenna systems to put up, those countless hours catching the mystery of this thing called radio. It has been said "Education is a debt owed from one generation to another," and we earnestly hope we have repaid that debt. Before we look at the stations starting after 1945, let's take a peek at the first

W L A P-Radio-Thoroughbred broadcasters Inc.

177 North Upper Street, Lexington, Kentucky DIAL 630 Kc/5000-watts

by Thomas C. Bowie, Chief Engineer of WLAP

"Unfortunately there is very little factual information regarding WLAP before the middle 1930's." I had asked Tom if he could dig up some history of this radio station, he then continued. "WLAP began broadcasting in September of 1922 on 1420 KC with power-unknown, but probably 100-watts, in Louisville, Kentucky. The word is that the antenna system was composed of a wooden tower with copper straps along its length and mounted on top of a building using an artificial ground system called a counterpoise. The programming was supposed to have been of a religious nature."

"At a time which is unknown to me, WLAP was moved to Lexington under the ownership of Gilmore Nunn. From the time the station was moved, probably sometime in the late 20's, until sometime in the 1940's WLAP operated with 250-watts on 1420 kilocycles. From then when the FCC realigned the AM band until 1950 the station was on 1450 kilocycles with 250-watts. During this time the antenna was a 5/8 wavelength self-supporting tower located on the west side of Lexington, Kentucky."

In 1936 WLAP applied for operation on 1260 kc with one kilowatt of power. The FCC, however, denied the application on the basis that WLAP would receive excessive nighttime skywave interference. In 1939 WLAP applied for operation on 630 kc with five-thousand watts of power and using a directional antenna. An FM broadcast station license was applied for simultaneously and was granted almost immediately, thus making WLAP-FM one of the oldest FM's in the nation. The AM application was still under study by the FCC when World War II intervened. After the war Queen City Broadcasting and the Cincinnati post's station WCPO on 1230 Kc both applied for construction permits for 630 Kc in Cincinnati. It was not until 1948 when the commission determined through hearings that the grant should be made to WLAP. Construction of the facilities was delayed until 1950 by a series of "tough breaks" and the necessity to move the transmitter from the proposed site to a different location. I think there are some pictures that were made in 1939 around somewhere but at this time I cannot locate them."

Sincerely

Thomas C. Bowie, Chief Engineer

WLAP

WHAS-LOUISVILLE, KENTUCKY 840 Kc class 1-A clear channel

(information supplied by WHAS) 50,000-watts

1920 In this year Pittsburgh listeners picked up first radio broadcast of KDKA. By the following year, crystal detectors had become a national rage. At the time our story opens, (1922) the country was mumbling of dynamos, voltmeters, variometers, choke coils, and variable condensers. Radio sets were being incorporated into rings, necklaces, cigarette boxes etc.

1922- In July fifth avenue buses in New York were being equipped with overhead antenna for convenience of passengers who couldn't wait to get home to listen. The Lackawanna Railroad was preparing to install earphones in berths. It was said there were a total of 19,000 stations in this country: 15,000 of them amateurs, 348 experimental, 2783 on ships, 439 commercial broadcasting stations. The National Geographic Magazine figured that distance from now on would be measured not in miles, but in knob turns. Colleges were preparing to introduce courses in radio. Five-million a week was being spent on radio equipment, which in three years had increased several thousand percent. Recruiting was being stimulated by it. Populace ducked in-between swims at beach to listen to the "ether." Inventors were claiming contact with the spirit world. Headphones were being clamped to ears of patients to prevent discomfort during operations. In Texas, a wedding ceremony was performed with the minister, bride and bridegroom, at three different locations via radio. By 1922 KDKA was broadcasting regularly from a tent on top of a Pittsburgh

building, sending out regular concerts, news, church services, and static. In Atlanta, the Constitution beat the Journal to the gun, opened its station a week ahead of WSB. However, Clark Howell, owner of the Constitution, didn't like radio too well. He heard that the president of Georgia Tech was yearning for a station, and delivered his to the prexy's porch and has never installed another to this day. The first announcer was a Southerner from Brooklyn, Lambdin Key. He taught himself to take a minute and twenty seconds to identify the station. His drawl became standard for the south. In Detroit, WJW tossed an antenna out a fifth story window, tied it to a rock in the alley, and fretted because its signals came out queer. They were still in a tizzy when Judge Bingham got the idea of a radio station for Louisville, Kentucky.

1922-In April Judge Bingham, owner of the Courier-Journal, called up Credo Harris. "Credo" he said, "I want you to put a radio station on the air for me...." or words to that effect.

Credo and Emmet Graft visited WWJW, found them biting their nails; but learned how to set up a station. A license was awarded by Herbert Hoover, secretary of commerce. Why "WHAS" nobody knows. But Judge Bingham knew what he wanted of his radio station. When WHAS received its license, the judge said, "I want a radio station which will reach into the farthest confines of the state, where a man may string an aerial from his cabin to the nearest pine tree, and, sitting before the fire in his chair, have a pew in a church, a seat at the opera, a desk at the university." Basically, the Judge wanted the operation of WHAS to reflect a concern for the interests of the listeners, and for the region which WHAS reached.

The new station was built in space acquired from the Fireproof Storage Company. It consisted of five rooms (reception, studio, manager's office, engineer, transmitter). Walls were pale cream, woodwork apple green; pale gray rugs, drapes at casement windows. Wicker furniture upholstered in bright cretonne. Grand piano at one end, organ at the other. Microphone was the size and shape of an alarm clock.

Studios and transmitter were in one building and this meant that considerable radio-frequency energy was present and when guest touched any metal in the studio, nobody knew what would happen. In the meantime Credo Harris was busy sending out letters to university upon university, musical societies, public characters, prominent individuals, of Kentucky and southern Indiana. Many queued up for auditions. One couple in their seventies appeared to sing.

It was on a Saturday of July 15, 1922, that two antennae, sixty-foot towers, were raised on the roof of the Courier-Journal building, and practice tests made: phonograph and piano music was aired and 100 calls reported that it was "The loudest, clearest program ever heard." William Tapp, of upper River Road, used a 25-foot clothesline for an antenna, said the program was loud and distinct. In an interview quoted in the Courier-Journal on Sunday, July 15th, Marconi himself said "I foresee a great university of the air and even though the airwaves are now cluttered with needless chatter, this would be cleared away to make way for the great ones of humanity... Scientists, authors, artists, and those who would lecture from some great central institution to classes of over 20,000,000." The weather was sizzling that Monday, July 17th of 1922, but the intense heat went unnoticed by radio-fans who raided the electric shops for last minute parts to build radios. One woman, electrically uninformed, constructed a radio from directions printed in the newspaper; said she heard the second practice concert fine. On the evening of Tuesday, July 18, 1922, Emmet Graft, the engineer, got the last bug out of the equipment just ten minutes before the evening air time of 7:30 PM. In every electric shop in Louisville radio-fans were clustered around loudspeakers poking out of everywhere. 150 in the crowd in front of Tafel Electric Company; 500 in a theater in Eminence, Kentucky; one man said, "I'm 79, but I believed I'd live to hear such things come from the air."

The red light went on in the studio, and Credo Harris announced, "This is WHAS, the radio telephone broadcasting station of the Courier-Journal and the Louisville Times in Louisville, Ky. The reaction to this first broadcast was immediate, and in some cases not exactly enthusiastic. Natural disasters were blamed on the radio waves. One critic complained that her child threw up in school, blamed disturbance of the ETHER for that. Another said bricks fell out of his chimney. One woman sat up for forty-hours: couldn't stand the electricity in her bedsprings and queer noises in the fireplace. One woman visited the studio, hoping to make contact with her late husband. A farmer came in, accused Credo of "Commuting with the devil" and said "A blackbird had dropped out of flock passing overhead and fell dead at his feet." And then in a whisper, "It might have been me too!"

Several months later, when things had quieted down somewhat, WHAS made a special test broadcast to see if a moving train could pick-up the signal as it went under a tunnel at Muldraugh Hill. In the fall of 1922, Credo was busier than a one-armed paper hanger, visiting schools throughout Kentucky, urging them to get together money for radios, visioning huge educational opportunity in widespread broadcasting to classrooms. It proved later that the weather reports given by WHAS had saved farmers millions of dollars and paid for the radios many times over. Due to an unfathomable federal ruling, stations broadcast at 360-meters with music, but weather, stock reports etc. had to be given at 485-meters. (see program chapter for this government ruling) This procedure caused frantic adjustments of sets and usually by the time the farmer got the new wavelength, the station had returned to the music wavelength. After much pleading by radio stations this rule was changed so that they could remain on one channel.

On his way to the studio one day, Credo Harris sees a church bulletin board with the legend, "GOD IS ALWAYS BROADCASTING." This gives him the idea of establishing regular church services, already begun by other stations. Popularity of radio sermons stirred ire in some pulpits because sermons had to be moved from 10 AM to 9 AM Sundays.

In the field of sports, WHAS aired first baseball scores on July 19th at 4 PM, and on October 4, WHAS broadcast first world series game, compiled from INS reports by wire. On October 21, WHAS carried its first football game, Center vs Harvard. Music proved to be the backbone of radio from the start. WHAS gave 82 afternoon concerts, 82 evening concerts also. There were 12 Sunday afternoon sacred recitals using 1610 entertainers during its first three months operation. Many of these performers were requested to make a repeat performance and an actual account of of these was not kept by the station. On a Saturday night in 1922 WHAS reversed a normal happening. Instead of going to the country club to pick-up a broadcast of an orchestra of Charles Myers, it rigged up its mobile unit and picked up its own signal at the country club and through loudspeakers the dancers heard the orchestra which was back at WHAS studio. Up until that time it had been thought that drums, bass viols, etc. could not be reproduced by radio. WHAS was first to introduce the clavichord over the air. Helen Mitchell, in costume, played it, with a mike INSIDE the instrument. Other programs carried music from jugs, carpenters saws, zithers, and french harps. Whistlers enjoyed a streak of popularity.

Then in December of 1922 WHAS picked up the organ of the Alamo Theatre. At this same time WHAS started cooperating with local police in location of criminals; also establishing bureau of missing persons. By January of 1923, WHAS had reached Spanish Honduras, Sydney, Nova Scotia, and Hudson's Bay. 30,000 letters had been received from its fans, and WHAS ranked as one of six foremost stations in the U.S.

October 31, 1922 reveals the news that Calvin Coolidge was to speak over WHAS. One-tube battery sets still in general use. Engineers fretting over "Body Capacity." Radio-fans who called to say their apparatus had gone bad were told to wiggle their catwhiskers, dash crystal with rubbing alcohol or vinegar, or bake in an oven. Then on the first anniversary of WHAS on July 18th, 1923, received 64,000 letters estimated listeners at 3,200,000 and had been heard in Laborador and the Azores. Anniversary was also marked by receipt of a letter claiming that there was a blind

spot 90-miles from Louisville. Station manager Credo Harris sent an engineer to investigate and he verified there was no WHAS there at all. Then to check to see if radio could be received underground technicians were sent to Moomoth Cave. They took a guide with them and tried three times with first spot too wet, second too dry, and 'gob results on third try. Proved that radio traveled underground too. First biographical sketches of Bible characters began in 1923 with direction under two theological seminaries. On March 20 of 1924 WHAS instituted the first out-of-town pick-up with Credo Harris at the Brown Hotel talking to Mary Pickford in New York. WHAS began a new farm school which was welcomed by farmers, teachers, colleges, and agents.

On August 22, 1924, WHAS was first to broadcast a battle scene anticipated Quentin Reynolds on the Spanish front a few years later. The battle scene was a sham battle at Fort Knox and bred a rumor that Martians were landing. This was 14-years before Orson Welles "Invasion from Mars in 1938." First chain hook up with the democratic president candidate, John W. Davis, speaking from Carnegie Hall, N.Y. In April WHAS gave a series of talks on crops, livestock, etc. based on U.S.D.A. experiments. It was in 1924 that WHAS began setting up remote studios in various music stores in town. Volunteer musicians on scheduled broadcasts sometimes failed to show up by air time. At this point, Credo Harris picked up the telephone to see if one of the other music stores would cover the show. Isabel Weitzelberger, who was one of the mainstays of the studio in 1924, was working at one of the stores and remembers rushing downstairs to round up any loose musicians who happened to be browsing there, and bringing them upstairs for an emergency performance. The result was sometimes unconventional. One concert consisted of four banjos and a string bass. Other experiments were premeditated: piano quintette; jazz with pipe organ accompaniment. Some orchestras numbered as high as 100-pieces. This was also the year of the first play-by-play report of the World Series. A telegraph operator was set up outside studio doors. The National Balloon races were aired also. By 1925 the all-electric radios were replacing the battery receiver. On September 4th WHAS staged first 2-way conversation with a plane in flight. On October 20, 1925, the first commercial was given. A Chicago advertiser offered three free cigars for response to his spot announcement. The second week he wired, "For heavn's Sake Quit." He was swamped with orders. A baseball game was played at Louisville's Parkway Field by players who imitated the World Series players by listening to wire reports. So accurate were these that photographs of the real and imitation games were interchangeable. First Derby broadcast from Churchill Downs. Credo Harris announced, Emmet Graft engineered. Two listeners dropped dead from excitement in Louisville and one in Illinois. The big news of 1925 was the Floyd Collins tragedy at the cave. Reports over WHAS held listeners tense. He was trapped for several days.

In 1926 WHAS and five other stations formed the Midwest Continental Broadcasting association. Arrangements were made then to have WHAS join NBC the following year. On February 19th 1926, WHAS produced the first play written exclusively for radio. In November Queen Marie visited WHAS and spoke over radio. By December a radio manufacturer had turned out his millionth radio and there were 700 stations fighting for control of the air.

WHAS carried the Dempsey-Tunney fight and in June Lindbergh addressed WHAS audience just three weeks after he had doloed across the Atlantic. On March 27, 1927, concert broadcasts of 100 harps from Brown Theatre. In 1928 both national political conventions broadcasts. On November 11, WHAS granted 5,000-watts power. May 19, fed Derby broadcast to 12 other stations with Credo Harris announcing. Reigh Count won in a rainy field. On May 20, "Shipwreck Kelly" awed a mob by sitting 100 hours atop WHAS antenna, then climbed down and boxed two rounds.

In 1929 the facilities of the University of Kentucky became available to the region through the agency of WHAS. To Judge Bingham, who was present in person to celebrate the event, it put flesh on his original vision of radio. WHAS engineers installed the UK studio and were generous with their know-how. From this time on, WHAS carried daily broadcasts on agriculture and home-making, with

weekly discussions and talks, round tables, etc., on broad cultural lines of local, state, national and international interest. On June 1, Lee Coulson joined the staff as assistant to commercial manager. On October 1, an afternoon program of devotions was begun in which ministers alternated under auspices of Louisville Council of Churches. Credo Harris announced from the court house step that WHAS was granted a power increase to 10,000-watts. On the occasion of a 6½-hour continuous broadcasts celebrating the American Legion on October 1. In 1930 WHAS petitioned for still greater power increase. At a hearing in Washington, Credo Harris said: "WHAS is ever alert to be of service in time of danger, distress or trouble...an actual necessity for the area it serves. Many mountain people live behind a barrier of crags, bridgeless streams and bridle traces which render them inaccessible to practically outside influence but the radio wave.

On January 20th Barry Bingham took a job and stayed nine months learning all the angles. Skeets Miller, perched on the roof, talked to and from with a plane in flight. This deed, marking the first two-way broadcast with an Army Bomber, was significant for military aviation. On February 20th WHAS announced the return of Richard E. Byrd from his year in the Antarctic.

On 1931 the Federal Radio Commission extended station licenses to six months hitherto, radio investment had been even a greater venture, with licenses limited to three months as a maximum! Amos 'n' Andy were National heroes and Kate Smith was singing "When the Moon Comes over the mountain."

1932-----January 12 WHAS opened an extension studio in Frankfort.

May 15.....Joined the Columbia Broadcasting System.

May 27.....WHAS made its first network contribution: Louisville Loons."

October 4..WHAS was granted 50,000-watts, for present, to operate on 25,000-watts.

December 1. Teletype replaces Morse Code in news room.

In 1933 Judge Bingham was appointed ambassador to the Court of St. James and on February 6 the new organ, one of the three largest in the U.S., was dedicated and also a new studio "B." On June 1, 1933, a historic listening center established. Suggested by Elmer Sulzer when a survey showed that the reason the University Of Kentucky programs were not being heard in eastern Kentucky counties was that there were almost no radio sets there. One county numbered twenty radio sets, another only eight radios. WHAS supplied technical advice and furnished radios. UK attended to remainder and supervised upkeep. Eleven studios were opened to remote spots in isolated areas. Neighbors gathered in crossroads stores, in private cabins, in school houses. For many it was their first and only means of contact with the land beyond their tree-rimmed horizon. Number of listeners gradually increased to 34. Then on December 3rd WHAS quietly announced its power increase to 50,000-watts. It was now audible from the leper colony of Molokai in the Pacific to Bangor, Maine.

On October 13, the studios for remote shows opened at Pikeville college and three days later at Eastern Kentucky State Teachers College at Richmond. In 1934 most of the farmers learned of the organization of AAA for their benefit. In 1935 WHAS made its first public broadcast from deep in the earth. Mikes were set up two miles from daylight in one of the caverns of Mammoth Cave. A half-hour program was piped in from Western Teachers College in Bowling Green once a week commencing on October 15. In 1936 radio was going to town on song hits: 112 songs were played as many as 10,000 times, equalling or as much as doubling the record of the top favorite of 1934, which was "Love In Bloom." Mark Ethridge came to WHAS and was later to head the NAB in 1936. WHAS won Variety Showmanship Award in that year.

In the field of agriculture it was WHAS who on January 6 of 1936 carried the news that AAA had been pronounced un-constitutional by the Supreme Court. However, the same year it was to announce the creation of the Soil Conservation and Domestic Allotment Act, which was even wider in scope than the original AAA. WHAS threw vigorous effort behind the conservation program, taught techniques; contour plowing, terracing, pond-building, crop and pasture fertilization, rotation, It celebrated

also the REA enabling act, passed at a special session of the General Assembly. It is noted that most of Kentucky counties had no electricity until the mid-30's. This meant the when WHAS realized how few radios there were in the eastern section of the state they had to supply battery powered radios. Because of the absence of high voltage electric wires there was no noise brought into the state and the battery powered radios were very quiet in operation. It is hard to realize today in 1970 how much noise is man-made and how good reception was before these high tension electric wires criss-crossed the state.

The story of the terrible flood of January of 1937 is told in newspapers, CBS radio documentary, and numerous articles which appeared in radio magazines during that time. The WHAS story is one in itself. In their diary it said, "January started bleak, cold, rainy, snow, fog, chill, all rotated monotonously. A blanket of dirty snow washed into the gutters by days of straight gray rain. Result: swollen sewers, a congested river over-taxed already. WHAS became a nerve center of stricken valleys, staying on the air for 188 continuous hours. Announcers and engineers ate and slept at studios, special events crews dispatched to inundated areas. 115,000 appeals for help were aired from WHAS. A stirring electrical story was often repeated as the station was warned of an eminent electrical failure. "It did occur and one of the most unselfish events ever recorded in radio broadcasting occurred. When WHAS was forced off the air because their transmitter was without power, arrangements were made with WSM in Nashville, Tennessee, to use their transmitter with WHAS supplying the program material. Most of the programming was devoted to the flood, and this information was fed via telephone line to WSM who cancelled all their own commercial shows and carried WHAS's flood news until such time as WHAS was able to return to the air." Reports and appeals were also carried over Canadian and National networks. The story then goes on: "As a result of flood work, Lee Coulson and Joe Eaton were elected to National Headliners Club, and WHAS was awarded on April 24th, the CBS medal for distinguished service in recognition of work in saving and preserving human life during disastrous floods of that January of 1937. Pete Monroe died of pneumonia and to this day people in Louisville remember this heroic work he did in braving dampness, chill, and misery, and staying at this announcing post throughout the flood. CBS radio awarded him the distinguished service award and the plaque is on the Louisville Court House lawn. Kentuckians from this area have migrated to every state in the Union and every one of them will recall the work of Pete Monroe if you mention the 1937 flood to them.

In addition to saving life, WHAS prevented a worst disaster over much of rural Kentucky. To thousands of farmers WHAS described foot-by-foot advance of waters, enabling them to get out with their families, cattle and machinery were taken out well ahead of the high-water crest.

In February WHAS carried the news that "depression officially over. By April 26 the United States reported jobs equal in number to that of 1929. In 1938 it was said: "Recovery despite recession was in the bag." But in Europe tempo was accelerated. Robert Kennett became new program director, Newscasts were increasing, getting schedule priorities. Sports also given new emphasis. Musical programs stepped up to a new high in quality.

A new transmitter was put into operation at Eastwood on a 104-acre farm, 18 miles out of Louisville on March 2. The new building not only housed the transmitter, but a complete machine shop for maintenance of equipment. A 66,000-volt power line from two sources and two directions plus a 100-KW power generator driven by gasoline were installed to insure uninterrupted radio service. Then WHAS sponsored the first Institute on radio and education. Five states participated in day-long sessions at the Kentucky Hotel, studying problems of heightening educational effectiveness of radio. They didn't solve the problem, but did build up a solid groundwork of mutual respect between the educators and the radio representatives. WHAS hired a new sports-announcer, George Welsh and began a more-regular schedule of sports which hitherto had been spotty.

Paul Sullivan, who you will recall from WLW, began on WHAS in 1939. His coast-to-coast newscast were rated one of the five best in the nation. A two-weeks course in radio education was given on June 13 with the University Of Kentucky cooperating. On December 17th a "Kentucky Nativity Play," written, directed, and produced, by John Jacob Niles, wove together early mountain ballads. The cast was drawn from the radio station personnel.

In March of 1940, WHAS started experimentally with W9XWT, short-wave facsimile for sending pictures, photos, and printed matter, over the airwaves. The year 1941 was a big one for agriculture. It marked the culmination of a lot of farm services which had been waxing since 1922. On March 8, 1941, John F. Merrifield appointed as first full-time co-ordinator. For years WHAS had been devoting various progress to soil conservation, 4-H and FFA, offering prizes for many kinds of accomplishments. This aided in setting up co-operatives in everything from tobacco to electricity and sorghum. Merrifield's job was to co-ordinate and intensify all this activity, build up contacts with all farm organizations, to the end that WHAS could develop the common good. He would write, broadcasts, visit, report, and tie this together, and inter-relate diverse activities to the betterment of farming methods, act as information agent, direct special problems to specialist, disseminate all kinds of information slanted to special regional needs. In response to vigorous programs, thousands of letters flowed in. Questions covered livestock, crops, orchards, poultry, gardening, soil, pasture, fertilizer, grading, marketing, and roads. Then for the first time WHAS offered the "Tom Wallace" forestry award. It was in 1941 also the WHAS carried the news of the selective service bill, the beginning of the draft. Also news that Hitler and Petain had pledged collaboration; Italy had invaded Greece, and the Hungary, Rumania, Slovakia had announced their allegiance to the Axis. On November 5, Roosevelt had been elected the first U.S. third-term president. It was in this year that the FCC changed the wavelength to 840 kilocycles. By May, WHAS had added the programs of Renfrow Valley to its schedule. A wealth of indigenous folk music of enormous popular appeal, backed by John Lair's huge library of ancient ballads, modern mountain music, and by Renfrow Valley personalities was added to the airwaves by WHAS.

December 7th, 1941, was a fair, mild, Sunday. The streets were sunny, and bright, and bare the way they are on most December days. There had been a record rush all week in Christmas shopping. Store windows were full of dolls that sold fast. The supply was scant. The afternoon before, Texas U. had ploughed through Oregon 71 to 7. At the National Theatre, "The Gay Nineties" was playing. Out at the WHAS transmitter the usual Sunday afternoon routine unrolled. The U. Of K. music program was a minute and thirty seconds short at 12:43-30, but filled in the time with a science program which followed. Meanwhile, back at town, Dick Wade was on duty at master control and D.C. Summerford the assistant chief engineer, was puttering in the shop. Jimmy Borders was running the ET out of "C" control. Joe Weeks, the stand-by announcer, had the door closed and was reading the funny paper. Most of the listeners had just finished Sunday Dinner. At 1:48:30, The Old Fashioned Revival Hour was broken into with 45-seconds of unscheduled news. In a voice which he tried to make matter-of-fact, Weeks said, "Pearl Harbor has been bombed." People sat stunned. It took a second or third announcement to make it real. All night long the station was alert. Bits of news poured in, mingled with orchestra music to which nobody danced. As the small hours grew larger, the music droned on, fading frequently for further interruptions. This began four years of real radio news reporting by WHAS. Staff members were giving freely of their time to outside activities in 1942. Civilian Defense; Red Cross; USO; were all manned by WHAS staff. The members were traveling 100-miles or more to direct or participate in shows. The regular, most ambitious entertainments at Nichols Hospital. Weekly programs were presented from Fort Know, Camp Shelby, and Bowman Air Base.

In July of 1943, the twentieth anniversary of WHAS, Credo Harris, who had built up a standard of public service which had won national reputation, and had done much to establish tradition for industry as a whole, retired from active management. At a dinner in his honor, climax of the whole affair, was a tribute from FDR: "You were a pioneer in a field of communications which is still in its infancy, and you have witnessed and have been a participant in remarkable achievements. I wish for you

many years of happiness and contentment as you watch the onward march of events in the sphere of your long and distinguished service." It will be remembered that it was FDR himself who early learned the value of radio with his fireside chats. Barry Bingham, now a lieutenant in the Navy, wrote: "No station in the country has been more closely to the line of public service. This reflects on Credo Harris. He has helped model the pattern of the entire radio industry." Lee Coulson, Mr. Harris's assistant, was made station manager. By the middle part of 1943 most of the staff of WHAS was in uniform.

In May of 1944 WHAS was awarded its FM permit. 10,000-watts for experimentation and the call letters then were W9EK. It will be recalled that the original band for FM stations was in the 40 megacycle range.

In June 21 of 1944 the newspapers said: "WHAS netted \$2,002,330 in one bond sales program in which state celebrities clowning their way to hilarious success. Victorie Lee's "What can I do for Victory" won the Variety award.

In 1944 that the soil conservation contests began. \$1,500 in Government Bonds were to be given to Kentucky boys and girls who wrote winning letters on "Conserving Kentucky's Soil."

In September of 1944 the first full-time religious co-ordinator was appointed, Rev. Charles E. Burns was the answer to two years prayer on the part of W. Lee Coulson, station manager. Burns took over daily devotionals and began delivering non-sectarian, non-denominational programs slanted to radio audiences. Aimed not only at 40% church-going public, but also the unchurched 60%. "Worship for all," new series included devotional, inspirational, general public service material, giving religious angle on questions of economics, social problems, urging support of agencies for human welfare. This gave religious bracket continuity it had previously lacked. Resulted in a steady listener increase.

By August of 1945 the vanguard of veterans began returning from the European theatre. Then WHAS set up the phone home fund originated by the station and the Courier Journal and the Times. Each battle casualty at Nichols General Hospital and AAF convalescent hospital at Bowman Field was given 15-minute conversation with his family. By March it had also set up a special wire from Washington, employed Wilfred Fisher, authority on Japan, Carey Longmire specializing on Kentucky and the Midwest news, to broadcast from the capitol.

Sam Adkins from the "CJ" editorial staff, made nightly analysis of developments abroad. After VE day WHAS applied for a television permit. George Walsh came back from the Navy and from now on he served as full-time sports co-ordinator.

And so we find in 1946 that the staff of WHAS had grown from 3 to 157 persons. The program department numbered over 100 employees alone. There were directors, producers, musicians, writers, newsmen, announcers, co-ordinators, sportscasters, women's news editors, librarians, arrangers, copyright specialists, and a fringe of part-time talent, available for musical or dramatic needs. Then on January 3 ground was broken for a new building at Sixth and Broadway, of which the two topmost floors would house WHAS. In that same month, W9XEK, after two years experimental work officially went on the FM band as WCJT. This was the first F M station in the south. In this year of 1946 we find the program "Wake up Kentucky" winning a citation from the George Peabody award committee of the Henry W. Grady school of journalism, at the University of Georgia.

In April of 1946, Mark Ethridge and other station representatives put before the FCC in Washington the arguments in favor of a vast increase in power to insure better coverage. Backed up its pleading with a survey of its own, showing more than 25% of WHAS programs were devoted to the public interest, and that its programs held first place among rural listeners in 88% of the daytime quarter hours. Since FM with all but inexhaustible spectrum availabilities, has largely eliminated the danger of air monopoly, it was argued that greater power on a few AM stations could only work good to the isolated areas beyond the range of FM,

or of low-power AM transmitters. Then on September 20, WHAS received the green light from the FCC on a petition for television.

In 1947 staff members lectured at newly created department of radio arts of the University of Kentucky and on June 1, W. Lee Coulson, station manager since 1942, was forced by illness to resign. On July 1, 1947, Victor A. Sholis, director of the Clear Channel Station Association, appointed manager. Also, Bob Reid, WHAS singer, signed by CBS for 13-week series. The chief engineer replaced a tube in the transmitter after 50,338-hours operation, it had only been quaranteed for 1,000-hours!

As part of the 25th anniversary of WHAS, several CBS shows originated in Louisville. "Hint Hunt," along with "We The People," and "Strike it rich," followed by "Bob Reid Sings," and CBS soprano Eileen Farrell joined WHAS stars in a full hour program written by Pete Disney and aired from Memorial Auditorium. "WHAS Week" proclaimed by Mayors of Louisville, New Albany, and Jeffersonville; also Governor of Kentucky participated in this proclamation. In 1948, with Quincy Howe as moderator, Governors Willis of Kentucky, Gates of Indiana, Thurmond of South Carolina, and Caldwell of Florida, appeared on "Let's Look at 48." Emmet Graft the chief engineer continued to run technical end of several programs. It was he who first put WHAS on the air. On this anniversary week two shows called "Anniversary Jamboree" where WHAS's hillbilly talent joined with the Renfro Valley for a big shindig. Then Peter R. Disney, former singer, continuity writer, and producer, who returned from the army service in Europe became the new program director replacing Dick Fisher. Mark Ethridge sailed for Europe to investigate the Balkan guerilla warfare and reported back to WHAS and CBS radio.

In 1950 WHAS announced that Bill Corum was the new president of Churchill Downs, and Victor Sholis debate whether to show the 1950 Derby "live" on TV. Vic lost. A Canadian listener, Mrs. Schrader from Woodstock, Ontario, travels all the way to Louisville to visit announcer Jim Walton. She said, "I first heard of Prime Minister MacKenzie King's death over WHAS." In 1951 WHAS continued its unchallengable leadership in radio news coverage, consistently scoring news beats on area stations and news wires. Extensive use was made of telephone recordings. Important stories given especially comprehensive coverage included the Senate Crime Commission's inquiries into gambling in Kentucky, local reaction to President Truman's firing of General MacArthur, and the Kentucky gubernatorial election. 56,791 people watched programs in studios and toured the facilities of WHAS.

As we finish out the early history of WHAS radio we are now in the year 1952. The program schedule contained the same regular public service programs. "Let's Talk it over": "Fellowship Chapel": "Catholic Visitor": "Kentuckiana Bulletin Board": "Round Table" from the University of Kentucky and "Morning Devotions," etc. But the big news was in personel, Harold Fair left the station for agency work in New York, and in April Sam Gifford from the announcing staff was named as program director. Don Davis left to become Director of publicity for Indiana's State Fair, and Burnis "Barney" Arnold from Oklahoma was named as director of the farm programs.

As the station's 30th anniversary approached (July 18, 1952) and its 20th year as an affiliate of CBS, WHAS was preparing for its annual excursion to the Kentucky State Fair where the entire week's local programming takes place under the "Big Top." Plans were made to take "The Old Kentucky Home Dance" to the Indiana State Fair. This program drew a crowd of 18,500 to the Jefferson County Armory on February 1, and the biggest crowd in Louisville history outside of the Churchill Downs races. The month of May found WHAS feeding the Kentucky Derby, a Derby preview, and the Derby Trial, to CBS. A Dr. Pepper southern sports roundup to the southern network originated at WHAS. The news department had already gained several exclusive coverage on narcotics raids, breaking down of segregation on the Louisville Golf courses, and FBI gambling raids. So we close this wonderful chapter of Kentuckiana radio via WHAS. When you hear FYI on "eight four Oh", remember it means "For Your Information." You'll listen and come back real soon...bye now.....

CINCINNATI POLICE AND GOVERNMENT STATIONS

Several government and city-owned stations are in Greater Cincinnati. The bureau of Air Commerce owns and operates station WMAS(1938) as it was known and it is now LUK in 1970. This was established March 31, 1935 at Lunken Airport. The transmitter and the four directional antennae (radio beams) for airmen are at Indian Hill, about six miles from the airport. As a combined radio broadcast and range signal station WMAS is operated primarily for airplanes and pilots. Signals are in CONTINENTAL CODE. When it leaves the transmitter, the signals, or beam, is about the size of a needle point. The beam then expands to form an aerial highway 10-miles wide at its broadest point. Pilots know when they are in the proper lane of traffic by listening for the signals through earphones.

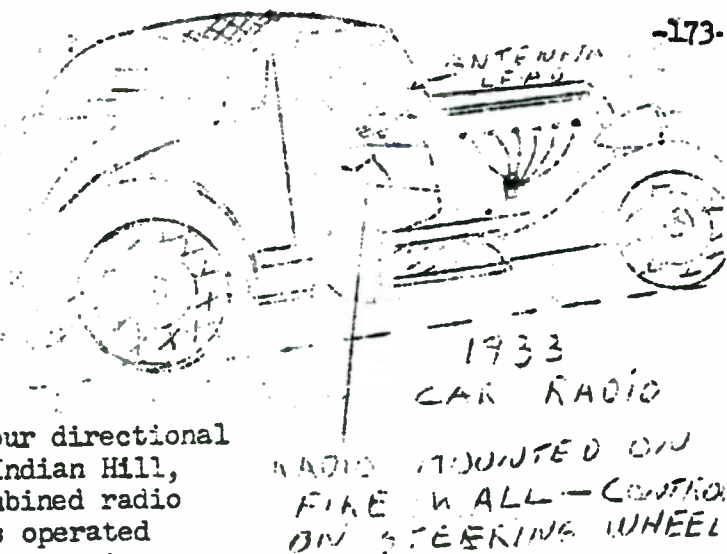
Four vertical antennae send this beam from the Indian Hill transmitter. One tower shoots it in a northeastern direction toward Columbus; another propels it southwest toward Louisville; a third directs it northwest towards Indianapolis; and a fourth tower points the beam into the southeast towards Huntington. The fifth tower acquaints airmen with weather reports and atmospheric conditions. The radio beam signals are on 1,500-watts power; the weather reports, 50-watts. The station operates on two frequencies of 236 and 332 kilocycles.

WUV, another government-owned station in the Cincinnati area, uses both long and short waves. The broadcasting equipment, operated by the Army Signal Corps at the Fort Thomas Barracks, Fort Thomas, Kentucky, was set up in 1923. Three men are on duty 12-hours daily during the years 1923 thru 1938. It is now discontinued in 1970.

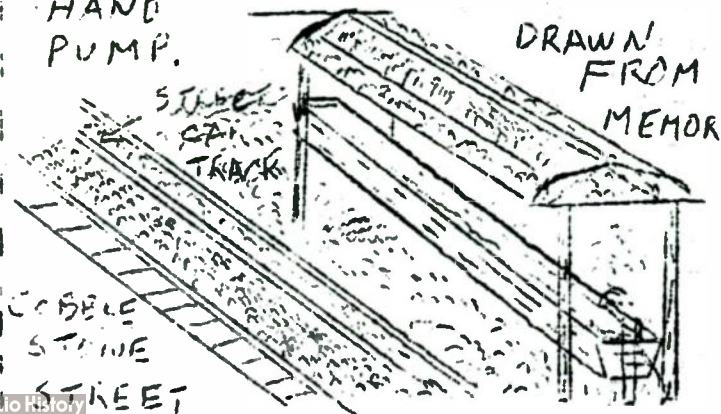
WKDU, "The Cincinnati Police" established in July of 1931, is owned and operated by the Cincinnati Police Department. It broadcasts from their studio in the northwest corner of City Hall at Ninth and Central avenues in the beginning. There were more than a hundred local safety departments with their automobiles. Police and sheriffs departments in the greater Cincinnati area are linked with the station. The transmitter equipment is in Eden Park. These transmissions are all one-way with only receivers in police cars until 1946. The old WKDU operated on a frequency of 1704 Kc which was just on the high end of any normal broadcast receiver. This was used until 1966 when the FCC ordered these low-frequency stations off the air. At this writing in 1970 the Cincinnati Police use the call letters KQA-387 on the VHF band on FM. The original WKDU transmitter was AM and ran 1000-watts.

Mr. Vincent Grote and Ralph Wehking are in charge of operations in this year of 1970. The Eden-Park operation will be discontinued shortly and moved to new headquarters in the Police building at Lincoln Park Drive and Central Avenue just across the Parkway from Music Hall.

Ralph Wehking recalled hearing the old WKDU while he was in the Coast guard during World War II, and relaying a message as he was bringing an LST up the Ohio River to Louisville. He heard his own "shipping orders" come over this radio station. Also, James Wellman, amateur



HORSE - WATERING STALL
AT 5TH & MAIN - NOTICE
HAND
PUMP.



radio operator W8HSI, recalls listening to the Cincinnati police radio while he was in the Pacific ocean aboard a Battleship in the U.S. Navy. Such was the nature of these low-frequency radio transmitters. They virtually were clear-channel broadcast stations.

The old horse watering stalls scattered throughout the city bring back some memories of the old days. To me there was something awesome about a policeman mounted upon a horse. If they were used today I'm sure that there would be far less crimes committed. The sight of this minion of law and order is more than enough deterrent to discourage all but the most foolhardy person.

At this writing in 1970 we find the Cincinnati Police radio call letters as KQA-387. The old WKDU operated upon a frequency of 1704 kilocycles just outside the normal standard broadcast band and was used until 1966 when the FCC ordered them off the air. All major cities used these low frequency radio signals for a long period. Louisville also had their own operating very closely to Cincinnati's frequency and could easily be heard in the Cincinnati area on most any type of receiver.

Some was told the story back in 1932, on a hot, humid, summer's day, when patrolmen road horses, of the time a horse fell dead at fifth and Sycamore streets. The officer went to the nearest phone-call box and asked: "What should I do?" (remember the radio was only one-way). The radio dispatcher said, "Hold on, I'll call you on the radio in a minute after I find out." Finally the answer came over the crackling radio, "Make it a report where it occurred." In a little while the officer called back and asked; How do you spell Sycamore?" And again from the radio dispatcher, "I'll call in a minute." Again over the radio came "Drag the horse to fifth and Main streets and make out your report!"

Be that as it may, Police work is a serious business and the radio did help tremendously. In the year 1931 a new voice was added to the Cincinnati airwaves. WKDU is a one-way transmission and not two-way as we know it today. Cincinnati obtained two-way FM equipment just after WWII in the year 1945. WKDU was known simply then as station "X". At this day of 1970 the operation at Eden Park is referred to as "X." Among some of the names connected with WKDU in the beginning were those of : Lampkin, who did most of the design work of the equipment and built it and who later founded, in Bradenton, Florida, the Lampkin Frequency Meter Company. It was James Hearn, amateur radio W8CIM, who supervised the total operation from his office in Eden Park and who was among those who first thought of a police radio system for the city of Cincinnati. One of the early men to work at the police radio was Ralph Hoffman who later was to be a stamp collector and write for the newspaper. The names of Ched Spearing, W8JJW; Carl Tonne, W8CEG; Carl Luhn W8BTI; Bob Knapp, W4QMW who later worked for the "Voice of America" stations. Names like: Paul Evans, W8ZRT; Ralph Wehking, W8YDC; Joe Rice, W4RHZ; Eli Laake, (deceased) and many other amateur radio operators who became commercial radio operators for the City of Cincinnati.

The studio for this operation was at the northwest corner of Ninth and Central avenues on the first floor of City Hall with Gold Letters on the window proclaiming to all the world that this was Station "X." The transmitter was located in the large, red brick structure alongside the reservoir in Eden Park. Some of the radio equipment was housed in the old water tower that not only supported the radio antenna, but was a refuge for hundreds of pigeons also. WKDU, with power of 1000-watts and using a frequency of 1704 Kc which made it convenient to modify the receivers of that day to accommodate this frequency. This was just above the broadcast band. When I say that WKDU broadcasted, I use the word with tongue in cheek as these transmissions were not intended as such, but due to a natural tendency to be inquisitive, and in the absence of any other news-service as complete, people did listen attentively. Across the seven hilled city of Cincinnati, riding the evanescent ether waves came a voice "Car four call your station," and this ushering in a new age that today in 1970 has a counterpart of millions upon millions of new voices in every city of the world. Little did anyone realize how important this would become in later years.

The word "Broadcast" means a scattering to the four winds. Although these transmissions were not continuous in nature like a regular broadcast station, but intermittent,

they could still be followed avidly and a certain continuity could be placed as to the locale and the persons involved in any particular escapade. It has been said that the 30's were an age meant for the ear alone. In future generations they will recall the past from pictures of computerized memory circuits. So the City of Cincinnati set the pace in the year 1931 with WKDU and now with all new concepts of communications it is again doing it in 1970.

At the Eden Park operation we find all the voice dispatchers plus five telegraph operators: Ed Zibulka, Tony Vaught, Paul Evens, Don Chesser, Bill McNally, using code operations on frequencies scattered between 2.6 and 8 MHz. Different frequencies are used depending on whether nighttime or daytime communications is desired. The fire department has their dispatcher desk in the lower floor of Eden Park and they also have two boats called "Ducks" fully equipped for river fires. Police use a frequency of 10.525 MHz for RADAR speed control of vehicles in conjunction with voice two-way radios for retrievers. The city has six base stations, all with separate call letters, their call letters and frequencies are: FIRE-KQC 767 on a frequency of 154.31 MHz with 130 mobiles and base stations at fire houses throughout the city; POLICE KQA-387, on 156.15 MHz with 150 operational mobiles plus walkie-talkie units; HIGHWAY MAINTENANCE KQA-20 on 150.995 MHz with 120 mobiles; WATER WORKS KQB 663 on 47.98 MHz with 120 mobiles; LOCAL GOVERNMENT (traffic, engineering, public utilities, property maintenance) with call letters of KQI 919 on 155.76 MHz with 125 mobiles; LOCAL GOVERNMENT (metro sewer department) KLS 617 on 453.350 MHz with 100 units, all battery operated.

There are teletype machines at Eden Park and each of the six precincts in the Cincinnati police system have one for instant communication to the central station. There is also a police cadet system where young police aspirants are trained and it is they who operate these teletype machines to learn police work in the Queen City. In 1970 the Police Chief Was Jacob Schott who is also an outstanding amateur radio operator.

INDIAN HILL RANGERS

(As told by Paul Connell, WABTU, in a tape recording)

Back in 1938 Chief Dieckmeyer was with the rangers when this first radio sets were installed. The Indian Hill Rangers had the first two-way radio system in the Greater Cincinnati area. "How did a system like this come about," I asked. Chief Dieckmeyer answered; "There was a need to improve our police communications. In 1935 when I first came with the Rangers we had one way receivers made by Crosley in our cars, and when one of them would go bad we would take the cruiser right on down to the Crosley shop in the vicinity of the workhouse near Spring Grove avenue and they would repair them. We listened to WKDU for our calls and we couldn't talk back. We used the telephone to get our messages delivered. We felt that there was a real need for two-way radios and we were constantly looking for ways to improve. At first the Rangers were a private organization and our president was A.H. Chatfield Jr. We were also very fortunate to have a man who was with the Cincinnati Gas & Electric Company by the name of Mr. C.W. DeForest who was interested in the Rangers. He would visit with us and actually he was a member, we had a membership that we called Non-resident who paid about \$2 a year and they would come out and use the pistol range and that sort of thing. Of course, Mr. DeForest was a big help in this and possibly one of the planners in this along with Mr. Chatfield. We needed a method to get a message to the man in the cruiser, or patrol car, we would use the telephone to call station X. I can still hear the dispatcher down there as I think back over the years in my mind, to the voice of Eli Laako. If any of you have ever talked to Eli, he was a Swede and he had that peculiar brogue and he became known as Radio-Laako. We would give him the message, and usually if it was not too much of an emergency, we would merely have him call indian hill rangers on the radio and say: "Call your headquarters." Of course we had no way of knowing whether the man received it or not at the time. However, if he didn't call in a few minutes we would have station X repeat the call. There were phones located at different points on the hill at that time. Most of the large estates had night-watchmen, who had small offices that were in the green-houses and each had a telephone installed.

We would give the man at the City Police station X the message by phone. He then would proceed to "broadcast" the message and our man would hear it and answer the call, wherever that might be. Of course you can see that we had a handicap to work under if the call concerned a bad automobile accident, or whatever it was when he got there. He had no way of knowing what to expect on arrival at the scene nor did he have a way of calling for assistance, or even an ambulance. If it was an auto accident and the persons were pinned in the car, for instance, about all he could do is to just drive away and leave them, and try to get to a phone to ask for help.

Through the foresight of Mr. Chatfield and Mr. DeForest, who realized that there could be some improvements they planned for two-way radio. When I came here in 1935 we used to have a fund every month that was charged off. I believe it was \$35, or some amount of money towards the purchase of two-way radio and we left that in the fund. It was almost 1938 before we were able to purchase a system. At that time I recall we tried out one commercial unit which did not work so well at all, and somehow we heard about a gentleman by the name of Fred M. Link of New York City who was a radio engineer. I believe that actually he just built this thing from scratch. He was in the radio business so we tried his radio system and it seemed to work far better than anything on the market. I do not know what has become of Fred M. Link or if his company failed or else he may have gone into work for someone else, I don't know at this time. That's the way we got started in the two-way radio. Our call letters at that time were W8XSD with a fifty-watt short wave two-way station. The newspapers wrote it up on May 18th of 1938 and I still have this clipping.

So we started in 1938 and we are the first police, or anyone else to use two-way radios in the Cincinnati area. Paul Reamer also of the Cincinnati Gas & Electric Company was our first radiotrician, or serviceman. There again you can see the influence of Mr. C.W. DeForest because Paul worked for his department. Of course, Mr. DeForest recommended him. Paul was with us until world war II when he went into the service and he recommended Chris Conrad who has been with us ever since. That pretty well brings us up-to-date in this year of 1970." Said Police Chief Dieckmeyer of the Indian Hill Police.

"Just one question," Paul asked, "Chief Dieckmeyer do you recall how you relayed information into Wilmington, Ohio, the State Police station there?" "I recall," said the Chief, "In the early days Cincinnati had communication with Wilmington by using telegraph over the radio to a state-wide network. They had two methods of reaching the Wilmington station. We had need of asking for license checks or Cincinnati would call them and sometimes could not raise them, and we did not have trouble here due our location. One of the methods was to use CW, or code, and the other was to use voice. Cincinnati would ask us to raise them and we did not have any trouble. As soon as we went on two-way Wilmington co-operated and installed a special receiver so they could hear our calls and we in turn listened to them on another frequency by using one of the old Crosley "Fivers" receiver. We had modified it somewhat so we could hear them and put a pencil mark on the dial so that we could always find the correct spot. We had another mark for Cincinnati's WKDU. We would tune back and forth real quick so we could hear them both when they talked to one another. All we told Wilmington was that Cincinnati had calls for them and they would give us the Okay and take over from there."

All the Northern Kentucky cities; Covington, Newport, Bellevue, Dayton, and all the rest would monitor WKDU all day long for calls from their area. They would pay for this service on a "per-call" basis. It was a one-way transmission. Early in 1941 the City of Covington went into radio operation by installing a two-way system on what was known as the "Low Band." This was in the 39 MHz range. The police were the first to use it and later they moved to the "High Band" and the Covington Fire Department took the old frequency. Jack Dickerson, W4PKU, built and installed the system for Covington while he was a patrolman. Dispatching was done from the old Covington City building just off the Suspension bridge. The first dispatcher was Jess Craig. Covington is now on 159.09 MHz.

As was stated earlier in this chapter by a direct interview with the Chief of the Indian Hill Rangers, John Dieckmeyer, they were the first police system to go on two-way radio. Further information comes to mind now from the book "They Built A City."

"The Indian Hill Rangers radio call letters were W8XSD and it was a 50-watt short-wave two-way broadcasting station owned and operated by the police department of Indian Hill, a suburb of Cincinnati skirting the northeast side. It is considered one of the most advanced police radio units in the country, the equipment was first put to use in May of 1938. Three mobile scout cars (1938) are equipped with cradle telephones and with the key station and transmitter at Drake and Shawnee run roads. The 24 regular and deputized rangers make direct crime and accident reports. The maximum range of the station's broadcasts is about 10 miles."

Using the first two-way radios for police in Ohio, the Hamilton Police Department has broadcasts reports over the air since November 28, 1935. Nine police automobiles are now (1938) linked with short-wave station W8XF, while motorcycle patrolman receive reports. Transmitting equipment is at headquarters in the City Building at Hamilton. W8XF operates on a frequency of 37-meters (8,100 kilocycles)."

In 1938 there were more than 500 licensed radio amateurs in Cincinnati. In 1970 there are almost 2500 licensed amateurs here. The largest and best-known of these is W8YX, maneuvered by engineering students at the University of Cincinnati. Power is six hundred watts for radiotelephone, and a thousand watts for code transmissions on a channel of 3,996 kilocycles. Equipment includes two 80-foot towers atop Swift Hall on the University of Cincinnati Campus in Burnet Woods. This station proved particularly valuable during the 1937 flood when students stood by for several days broadcasting information. It was professor William Osterbrock who started this station. He had written several engineering books on electricity.

V O X P O P

(COMMENTS FROM RADIO AMATEURS-LISTENERS-PERSONALITIES-WHO WERE ON THE SCENE)

A LETTER ADDRESSED TO WHA IN MADISON WISCONSIN:

I am 92-years of age and still want knowledge, so I am listening to your broadcasts. I enjoy everything including the children's programs which teach them how to grow up. I like to listen to great minds who go down to the cause and effect. I want to learn until I die and my graduation gown will be my shroud. (1957)

FROM BILL AUGENBAUGH- died July 1971-FORMER ENGINEER WLW

My last employment in radio and television was as chief photographer for WLW, and I retired in 1969. My first impression of radio was in 1915 when a friend of mine who had a transmitter in a store. An old "Spark" rig using a "coffin" transformer. In the summertime you could hear it all over town and in the winter you could tell because all the lights blinked every time he keyed it. This all happened in a small town in Pennsylvania called Clearfield. I didn't have a license then, in fact I was not really interested until about 1918 to see what this thing called "wireless" was all about.

My parents gave me a Gilbert Wireless set for Christmas. This was a set using a piece of galena for a detector. Later on I got a license, 3A50, in the city of Altoona. There were no prefixes like "W" or "K" in those early days. I got a commercial license later in 1923 and became chief engineer at radio station WFPG in Altoona which was owned by the Gables Department Store. While there I got interested in an aviation station at Belfont right in the center of the state. When the U.S. Postoffice first began sending the mail by plane, they established a communication line across the continent using the Old DeHavilland DH-4 airplanes. From Newark to Belfont, which was the first stop going west. Well, I used to visit this station at Belfont called WWQ. They had a Federal "ARC" transmitter and operated on a wavelength, as we called it then, of about 2200-meters. The receiver was a Navy type SC-1420. Getting to know some of the operators there, who I believed quite often while they ran errands into town, and I remember Mr. H.J. Burhop who formerly operated a station in Wisconsin and also worked at the old Navy Station NAA in Washington, D.C., in the spark days.

In Altoona I could hear the Sayville radio station operated by the German TELEFUNKEN Company which later got into trouble due to espionage. The Navy Station NAA was used by all of us to get the correct time, weather reports, position of ships,

and to just listen to. Most of us learned how to copy Morse Code this way. Old NAA used what was known as a rotary-gap spark rig-running 100 kilowatts and this station and NSS at Annapolis, Maryland, were the two chief eastern radio stations. NSS used about, as near as I can recall, 25,000-watts of power and they had a generator that charged the condensers used in the discharge system that were huge. I would say they were 8-foot high, and five-foot square. These discharged through massive spark gaps and then went through a helix coil to the antenna.

NAA sent messages every day, and at 11:55 each morning would send a series of dots until exact noontime was reached, and then a long dash meaning noontime. After the time signal was sent they would broadcast messages to ships, commercial text, messages to other land stations, hydro-reports, or other dangerous weather conditions issued by the weather bureau. This procedure was again repeated at 9:55 PM with a long dash at exactly 10 PM. Then followed general news such as baseball scores etc. This morse code sending was the smoothest I have ever heard, very easy to read, and sent at about ten words per minute, which anybody could copy. I once heard them on a crystal set, it was

a very pure 500-cycle note. Later on I used an audion tube with better results. Using what was known as a "Loose Coupler" and only a short piece of wire for an aerial, and a ground wire, I could hear them 300-miles away. I was told you could hear them 1,500 miles over land and about 2,500-miles over sea water, The Navy had another station on the West Coast, at San Francisco, called "NPG" which re-broadcast the programs from NSS and changed the time to local pacific time.

FROM PAUL BEIDENHORN-WLNMQ-COVINGTON, KENTUCKY

My earliest memory of radio was in obtaining a crystal set to use. It was owned by a neighbor which he had won in a contest. It had only one earphone. I guess I was ten years old at the time, which was about 1919, and we would stretch a wire for an antenna out the window and attach it to this set, which had a large coil on it with a slider, and we would hear music. That was a real thrill of a lifetime for me, and that inspired me to gather some parts, and put one together myself the following year, I recall hearing WMH when they were at Peebles Corner and they used a megaphone in front of a mike so it would pick up sounds, and a gentleman singing "Carry me back to Old Virginy." Later on I recall hearing Powel Crosley from his home, and he said "You oughta be hearing me good tonight, cause the wind is blowing in your direction."

I later on got an amateur radio license in 1924, W9BCY. My first contact was on code and I used to talk to a fellow in Fort Thomas(3-miles away) and all I had was a 1-tube set using a WD-11 tube, and a key and some batteries. I guess I'll never forget that contact...ever.

DO YOU REMEMBER DEPARTMENT

Do you remember how we used to wait for our radios to warm up? And how the theme song reassured us we hadn't missed out on a program. Seems we always knew when it was time for Amos 'n' Andy, Jack Penny, Easy Aces, and all the rest, just by the theme song.

FROM HOWARD HOUSE-WLJYS-COVINGTON-KENTUCKY

About 1920 I saw a notice in the newspaper that a gentleman would give a lecture on "What radio would mean in the next few years." He would appear at the RITZ theatre on Madison avenue soon, or so the newspaper said. This theatre burned down and became known as the Madison Theatre later on owned by L.B. Wilson of WCKY. Well, the man did give the lecture on the subject of radio, but people didn't even know what the word "RADIO" meant! This was my earliest memory of radio and this was back in the days when you put up a long wire for an aerial and attached it to a crystal radio receiver to hear vloices. Your neighbors, without exception, thought you had a secret telephone wire hidden underground to bring these programs into your house. They simply couldn't hear the stuff with their own ears, so it just wasn't in the air at all!

1937 MAGAZINE ARTICLE

To get the most from your radio have a radio-repair man check it regularly. Radio has become so much a part of the American way of life and we accept it without question. It's unbelievable wonders, bringing the world right into our homes. It entertains us, inspires us, brings us news and weather and all the latest information, and yet today it is treated so commonplace. All we have to do in order to bring the finest in music, the most famous comedians, the most up-to-the-minute news, to say nothing of the endless offers of cash prizes, is to have efficient radio sets, and to keep them that way.

FROM STAN BURGESS-CINCINNATI-OHIO-W8RJ

I'll tell you how I got started in radio back in 1911. Another fellow and I used to go out to a freight station of the railroad where they had a telegraph operator who used an automatic key, or semi-automatic key called a "Bug." We went down there quite often as we were interested in this thing. He said to us "If you are that interested I will make a deal with you. If you will cut my lawn a couple of times I will give each of you a sounder and a key." So we got the sounder and telegraph key from him, after many lawns were cut.

My friend lived in the next block and we got the idea to string up wires between our houses and practice sending code. Of course we had to have wire, and this is where we were up against it. We talked to the man the next day about this and he said "Why do you need wire?" and we didn't understand so he said "Why don't you try wireless?" We got to talking about it and he told us what to do to get started. We went to the garage and picked out two oldford spark coils used on the Model "T" cars. In those days they didn't have starters on cars so they had to use four of the type number six dry cells to start the car with a crank. After it started you switched over to the internal magneto built around the fly-wheel. This mag, as we called it, was composed of a lot of horseshoe magnets arranged around the flywheel of the motor. There was a terminal post on the gear box and you just brought out a wire from that to run the spark coils on. Well, he found the old dry-cells and gave those to us too. We got the transmitter going, or so we thought, because we couldn't tell as we had nothing to hear on. So each of us got an old "Oatmeal" box and wound a coil on it and a smaller box to wind another coil on so we could slide one inside the other to vary the coupling between the antenna and the receiver. Well we got our receivers going after a fashion, at least we could hear each other across the street. All this took almost a month before we actually were able to chew the rag back and forth. I forgot to tell you we were both in Independence, Missouri in those days. We heard at least a half dozen stations and found 15 or 20 radio amateurs in Kansas City which was about 30-miles away. All this happened in 1913 and we had lots of good contacts and it worked out pretty well for us. We didn't have a license then, only used our initials for call letters, and I took the call of 9SB. Then along came the war, and of course that closed us down for good. I tried to apply for a license from the postoffice, but they didn't know anything about it. By the time they did find out I had joined the army. Incidentally, in 1914 my dad bought me a brand new pair of "BRANDES" earphones, I think he paid \$15 for them, and he gave them to me on my birthday. They were the Navy type and I carried them all during the war until 1918 in France. I still have them in this year of 1969 and they are still working.

FROM JOHN AMICK-CINCINNATI-AMATEUR RADIO WA8ZJW

I remember when my brother used to send code to a neighbor several miles down the road on a spark transmitter in 1914. They used a 3-wire antenna system and a 32-volt delco electric plant for power. The blue smoke from that transmitter was something to see alright and the smell of the ozone will not be forgotten by me. At night we used to lie in bed and listen to WLW on a crystal set when we lived way out in Abilene Kansas in about 1923 and strained our ears to hear them.

We heard WLW out of Chicago too and that was a real thrill. I was on radio myself when I played at KMBC in Kansas City and also WIEW at Topeka. We also recorded the theme song for the San Francisco World's Fair in 1927. I played the

piano accordion on that along with Tex Owens, Bob Wills, and the Texas Playboys. Our Tenor player, Edmund Denny, was blind but he sure could play music. This all occurred in the fall of 1927. I left there and went to work in the oilfields. The name I used on the air was "The Lonesome Cowboy" for almost four years on radio. These radio programs were like the one on WLW now that you call "The Midwestern Hayride."

FROM WEN CAYTON-KLKL-BAYTON, KENTUCKY

When we lived in McLean County, Illinois, in 1917 I can recall that February when I closed the key on an old spark transmitter and the fellow on the other end said I had a pretty bad fist and I had better do some studying on the telegraph key if I wanted to be understood. As the years past it found me with the first antenna in our town to receive radio in 1922. The neighbors were concerned because they thought it was a lightning hazard, in their opinion. But as the years have gone by I have found that Amateur Radio is a very interesting hobby.

FROM WILLIAM HOWARD GOODRICH -W8LNL-CINCINNATI

Joe Rice has asked me to try and remember some of my earliest experiences in radio. I built a two-tube regenerative set which was featured in the magazine "QST" around 1930. The coil was wound on a Mather's Oats Box and had taps which we attached alligator-clips in order to tune it from 8-meters down to 20-meters.

My earliest recollection of listening to radio in the 1920's, and I think an interesting observation as I think back, was that my mother would not let me listen to the radio until my home-work was done. This was a real incentive system, as I always wanted to get done in order to see what was going on the radio. Our radio was a crystal arrangement, something like the DeForest Circuit, with the "cat's whisker" which you moved around to find the most sensitive spot and the coil had a slider to tune it with.

FROM DON MEYERS-W8CNV-CINCINNATI, OHIO

I've had that same old call of W8CNV since 1929. It was really something in those days, we worked the old 40-meter band and used what we called a "blooper" receiver-all home built with a storage battery for filament power. I used code and a 60-cycle transmitter which I later modified to 120-cycles. I later took an electrical engineering course at UC and worked as an engineer for several steel companies around Cincinnati. In 1945, after the war, I started the radio parts store "Mytronic" Company which I kept going for 18 years. I had been a Captain in the Ohio National Guard also. I sort of semi-retired in 1965 and couldn't stand being inactive so I obtained a position teaching math and physics at Withrow High School. I've had a lot of fun from amateur radio and we are still very active.

When I was 9 or 10 years old back in 1920 we had a little crystal set that my daddy put together in the early days of broadcasting. We heard KDKA in Pittsburgh and later on WLW in about 1922. People in those days said that radio would never go over, it was just a toy and wouldn't amount to anything. I sure got a kick out of listening though, toy or no toy. Just in passing, as I am making this recording for Joe, we've just listened to a talking movie telling about the telephone Company's new TELSTAR satellite for world-wide communication in this year of 1969. It shows how far this "Toy" has come in the intervening years.

FROM THEODORE THOMPSON-W8FHZ- CINCINNATI, OHIO

I first got interested in radio when it was called "Wireless." It was 1922 and people were beginning to build these wireless outfits on oatmeal boxes. I came home one day and announced that I was going to build a wireless station. My father, who was a lawyer and a fairly intelligent gentleman, an erudit gentleman I might add, quickly got out the encyclopedia and found out the in order to build a wireless station you had to have a copper plate about 25-feet square and buried about 30-feet in the ground. You had to have all sorts of things that were far out of reach to a kid still going to grammar school. He explained that to me, and did build the oatmeal box radio with the cat's whisker. It didn't work, I couldn't get a sound out of it. I

went to Dad that night and my Dad-for reasons I've never known nor been able to understand-got to fooling around with it and we heard what sounded like code to us. It was certainly some intelligence coming in on the thing, and he went completely over-board after that and became a SWL for the rest of his life. He died when he was 80-years old. He kept promising to take the examination for his license every week. In 1948 I got my license and there was no reason for him to get one. He died without accomplishing what he had set out to do many, many, years before that. Radio was far different in those days, when it really wasn't radio as we know it today.

FATHER ED BURKE-KOVVN* XAVIER UNIVERSITY

My own personal recollection of radio dates back to the year of 1922 when I was in about the first or second grade of school. My Uncle had wired up a crystal set one of the first in our neighborhood. I recall stopping in there to listen to it. I think the station was WLW when they were in Harrison, Ohio, several years before moving to Mason. My uncle had two sets of earphones rigged up with the usual catswhisker all set up on top of the piece of galena crystal. I don't remember what program we listened to then, but my strongest memory was in seeing him trying to get that catswhisker adjusted. His house was only about one block from the B & O railroad tracks and when a train would go by it would shake the house just enough to get that catswhisker off of the most sensitive spot. Then my uncle would say a few choice words and hurriedly re-adjust it.

When I acquired my own personal crystal-set in 1928 I had an antenna made of pieces of wire the telephone company used to throw on the streets after they were through working. I picked up hundreds of these small bits and twisted them together in order to get an antenna wire long enough to run about 100-feet. That worked real fine. At that time we lived in a part of Cincinnati called Delhi, or Saylorpark. Right across the Ohio River from the transmitter of WCKY at Crescent Springs, Kentucky.

One of my favorite programs was "Jake & Lena." Jake was an amusing character. He always sing "No matter how young a prune may be-he's always full of Wrinkles." My dad always wanted to listen to the football games and I couldn't get a chance to listen myself. This was all in the year 1928. Then he bought an Atwater-Kent table model radio, one of those metal boxes with a cone speaker on the top. It had two dials and a gain control. You had to pry off the lid to see what was inside. In 1930 I saw my first Amateur Radio station. It was down at Fernbank Dam where a statue of an Indian was, and the house was right next door to that. I can't recall the name of the family at all. The radio amateur had a large rack that reached almost to the ceiling and his antenna wire looked like a small ladder with those wooden spacers every two or three feet. This wire came down and into the window. In later years, about 1931, someone gave me a box of old radio parts. Tubes, like the type 201-A and a remember the UX type had long pins on the base. I built an audio amplifier with one-tube attached to the crystal set and it made it real loud. I used a cone type speaker that was given to me. We had a variometer to tune the set with. I could tune out the Cincinnati stations and I got WHAS down in Louisville. That was quite an achievement for those days.

Shortly after that I began building regenerative receivers using the type 199 or the peanut tube as we called it then. One of my friends, whose mother worked for the local telephone company, obtained for me some old batteries they had thrown away. The company would load up our little red coaster wagon and I would take home about 50 at a time. Each home in those days had its own battery before the days of a central exchange. These batteries were discarded after a certain amount of use. I would arrange the 50 cells in a series arrangement for my high voltage "B" circuit. My Mother was always deathly afraid of sweeping or cleaning in my room for fear of being electrocuted!

In the 30's I heard "Moon River" over WLW and also Little Jack Little singing "Japanese Sandman." In 1927 I remember hearing a championship fight over my uncle's battery radio. They lived in Canton, Ohio. When we got our first all-electric radio my Dad let us sit up past midnight so we could hear California and another station in Mexico. We heard that station in Schreveport, Louisiana owned by a man by the Name of Henderson. In 1919 or 1920 Xavier had a station here on campus owned by a man named George Steinkamp, W8IH.

"ADVENTURES IN WIRELESS TOLD BY 14-YEAR OLD BOY"

So said the newspaper in December of 1915 about George Hussey-Khojs

George L. Hussey, 14-years old, lectured about his adventures with wireless before his classmates at the Guilford school near Lytle Park a few days ago. Of an evening when other boys were at the nickel show, George sits at a wireless machine at his home, 33 East Third Street, Cincinnati, Ohio. He catches messages out of the air from San Juan, Torto Rico; from Key West, Florida; and from Arlington, Va. The boy-lecturer wasn't nervous. How could a boy who every night reaches out into a world of wonders be nervous?

From the wireless stations at San Juan and Key West he picks up weather reports and other messages about ships. From Arlington he gets the time of the night or day. In order for his classmates to understand, he explained that wireless waves work just like a bouncing ball. One bounce makes another, and the stronger the wireless machine, the stronger the bounce.

George has a receiving machine that has a range of 800-miles, but his sending apparatus doesn't reach out that far. But each night when he has gotten his messages from San Juan, Arlington, and Key West, George has wireless talks with other wireless boys nearby. So from 1917 to the year of this writing in 1970 is a interval of 53-years, and George is still at it with the Amateur call of K4CJS in Bellevue, Kentucky.

FROM VERNON (RED) THORNBURGH-RADIO ANNOUNCER AND SPORTSCASTER

My Amateur Call is W8KJX which I have had since about 1930. Prior to that I used to operate under the call W8AGI when I became interested in radio in 1922. I can remember going to the ten-cents store to buy radio parts to build radios. Jimmy Maddox was the salesman on 5th street. The "Freed Eiseman" radio was familiar to me and the station at Peebles corner using call letters WMH.

I got into broadcasting in 1927 with WFBE before it became WCPO. Harry Hartman did the play-by-play from Crosley field and I did some myself. We were behind home plate at that time. One of the fellows who was instrumental in getting me started in the early days in radio was Ed Gleason amateur radio W8DDY. Ed took a picture of me in 1931 when I had one of the first mobile radios in this area in my car. It was in the year 1929 I built my own receiver and transmitter using 1-1/2 volt tubes and a bank of "B" batteries. We didn't use the car battery at all. For an antenna I used a piece of copper tubing mounted on a block of wood. I closed the rear car window on this block of wood to hold the antenna in a vertical position. We fed the antenna with a piece of shielded wire and this was in the days before co-ax cable had been invented.

I was up in Mt. Echo Park one night talking to Ed who was over in Price Hill. A policeman came along and asked me what I was doing and when I told him I was talking to a friend over in Price Hill he didn't believe me. There was no such thing in those days as two-way radio so he just couldn't understand what was going on. The Cincinnati Police radio had not come on the air yet. In fact, it wasn't until May of 1931 that you could hear old WKDU.

I kept up with broadcasting and worked at WCPO, WSAI, and WLW. I later went with the Navy in World War II and met Ed Peabody, the banjoist, at Great Lakes, and then August Hund who wrote many technical books on radio out on the west coast. I had started as a sportscaster on WFBE and later to WCPO then on to WSAI and finally to WLW. I became involved in special events programs. I did all of the knothole baseball shows. This was a pet project of Powel Crosley. Rollo Tedford, who later manufactured crystals for radio use, was the engineer on many of these early shows. We had a buick auto and put two turntables in the back seat mounted on shock rubber and we would record the baseball games, wrestling shows and what have you. We brought the records we had made back to the studio for playback. We did bowling shows also and for the most part we used a condenser mike for all these shows.

When TV started with the early experiments at WLW in 1947 from the 48th floor of the Carew Tower as station 8CP I did the announcing. The first commercial show was a 30-minute show in the afternoon called Dodge Dugout Dope. I was first on TV in the late 30's about 1939 from WLW. We were on the air a few hours a day on Channel 4. There were only about ten receiving sets in the entire Cincinnati area and most of these were owned by engineers of WLW who monitored these programs. Eventually the Dumont Company came to town with an office and showroom on Garfield Place. The first set they sold was installed in a cafe at Ohio and McMillan avenues. The people watched the wrestling matches from this cafe when I did the announcing for it. This was in 1947 and it was the first wrestling matches ever televised in the midwest. We did the first baseball, first football shows too. It was September of 1947 when I did the Chicago vs Cincinnati game. We had many problems like using a reflector to get the video up to Mount Olympus where WLW studios were. The audio was fed over telephone wires the same as we did on radio. We did shows from River Downs, Carthage Fair Grounds, and harness racing. We could only broadcast where it was line of sight back to the studio. That is the reason we only did the UC basketball games and not Xavier. The Vernon Manor Hotel building was in our path until we installed a relay pickup on the rooftop. The first commercial show was called "Who Am I?" This was on television and this same show is still on TV called "Concentration."

In 1948 we did a horse show from the Carthage fairgrounds and the Westinghouse company had an airplane called "Statoplane." They would pick up our microwave video and re-broadcast to distant cities, like Washington, New York, Cleveland, and Philadelphia. We got letters from all over by the hundreds about that.

There was no video cable then, it was not until after 1950 that this occurred. Westinghouse wanted to try this technique to see if they could successfully broadcast the upcoming Joe Louis heavyweight fight from Chicago a few weeks after this. WLW was the 5th or 6th television station on the air in the entire country in those days.

When I was first exposed to this thing called radio in 1922 very few people were interested at all, in fact, I don't think they understood what it was. A friend of mine, who was a doctors son, and myself, made a trip every week to the library to read the latest books on radio. Hugo Gernsback was our favorite writer. My Dad encouraged me to do this and I am glad he did. The first time I heard a voice come over the radio I couldn't wait to tell someone about it. I was really excited at this event. I heard KDKA in Pittsburgh, and over WDAF I used to listen to the Kansas City Nighthawks orchestra at night on a crystal set here in Cincinnati. I went at this in a big way then, and it is now a long time ago.

FROM LT. CMDR. USNR-ELMER SCHUBERT-WBWLW

I appreciate this chance to tell of some of my experiences since the early 20's and to set the record straight for posterity.

My earliest association with radio, or wireless as we called it then, was when I was in the 8th grade of school back in 1911. We wound coils and made receivers to hear the few signals then on the air. I lost touch until after I had graduated from High School. My first transmitter was a one-inch spark coil and of course a crystal detector receiver. I had no association with the fancy types of detectors such as the coherers and the mercury cup at all. I had seen them, but they costs a great deal. Probably the best transmitter I had ever seen was the one used by the first Amateur Radio Club. We called it The Union Central Radio Association. We held meetings on the 30th floor of the Union Central Building. Activity there began immediately after world War 1, or as soon as the radio ban was lifted after July of 1919. We built a 500-cycle quenched gap spark set and we used one of the finest receivers made by the Kennedy Company. So the whole station was an outstanding station in the Cincinnati area. The call letters were 8ARS; in those days we did not have the "W's" or the "K's." We participated in many of the relay routes throughout the country and we used the rig for quite a few years. I set up my own station at that time.

Radio to me has been one of the outstanding things in my life, and I feel that the friendship and the associations that I have had through radio and wireless has been something that has proved most rewarding to me in my life.

The Greater Cincinnati Amateur Radio Association has been the outcome of the Union Central Club. The GCARA was organized in 1936 and proceeded to have a net operating on a frequency of 1936 Kc (same numbers as the year club was formed) in the 160-meter band. It was then that the Union Central facilities were turned over to the U.S. Naval Reserve unit in 1936 and used the Navy Call Letters of NEG until the involvement of the United States in World War II. In 1970 I am pleased to be serving as the assistant director for the great lakes region of the ARRL.

I can recall a very interesting bit back in the early 30's when the Naval Reserve Communications unit participated in a battle problem one summer. Each summer cruises were conducted on the Great Lakes. One of the fleets was known as the RED fleet, and the other as the BLUE. In 1932 one of the first uses of the five-meter band, and of putting amateur radio to work occurred. I was associated with the BLUE fleet, and we maintained radio silence during the mock battle. Of course we were listening to the old fashioned spark transmissions of the Red fleet so we knew their maneuvers at all times. They never dreamed what we were up to. However, our fleet was operating for the first time on voice and on these high frequencies the other fleet had no inkling of what we were doing and they had no receivers at all for these frequencies. The Red Fleet could not understand why our blue fleet was not using radio, or so they thought. They had suspected us to also use the normal radio channels. Of course the Blue fleet won the battle and at the critique at the conclusion of the mock battle the question arose as to why we had not used wireless transmissions.

The Red fleet commander said his men had monitored continuously and heard no signals at all. We then told him that we had used voice transmitters on the very high frequency five-meter band. The judges ruled that it was not fair, but we argued that the objective was to win the battle and this prevailed. It was a successful move and it proved that amateur radio expertise saved the day. Radio in modern times is vital to the Navy.

The Cincinnati group may well have been the first to ever use it officially for the U.S. Navy. Much credit for the idea and for making it function should go to Hoyt Scott of Cleveland, and to Harry Brekel who was also associated in the early days with the broadcasting station at Peebles Corner, and I must say that I too added my bit to the operation. There were at least six other radio amateurs who did this particular bit of strategy in maneuvering the Blue fleet in one of the first uses of five-meter voice transmissions.

FROM CHARLES STAAB-PARTS SALESMAN FOR HUGHES-PETERS INC.

A long time ago when I was just a boy, we lived near Anderson's Ferry, I had made a crystal radio by winding my coil on a wooden broom handle. It must have been almost a foot long! I made a thing to slide across the coil so I could tune it. I do remember hearing the radio station run by the "CINO" Radio Company located on 12th street near the Parkway. The call letters were WIZ. This was in the year of 1923. My antenna was made by twisting together 7-strands of No.-22 copper wire and stringing this out the window to a nearby tree. I remember my insulators were about one-foot long and made of porcelain. My mother was deathly afraid of lightning and she made me put a huge knife switch on the antenna before it entered the house. so I could ground the wire if lightning should strike. One night two stations, WIZ and WLW were on the air at the same time, which was unusual, as most times they alternated nights. It was a mess trying to tune to one or the other on my poor radio. I heard both at the same time. I do recall hearing a radio program called "Thompkins Corner" and their theme song was "Chicken Reel." My favorite was Jake & Lena.

HUGO GERNSBACK-RADIO EDITOR AND PIONEER

One of the real pioneers in bringing radio as a hobby to the public was Hugo Gernsback, who, in 1904, founded the Electro-Importing Company, known to all early

radio-amateurs simply as the E.I. Company. He and Louis A. Coggeshall rented a location at 32 Park Place, New York City, in 1906, and began to offer a wireless set labeled the "Telmico," a name made up from letters of the Company's designation. Gernsback also began publishing his first magazine "MODERN ELECTRICS" about this time. The E.I. catalog was considered the last work when it came to radio parts.

Gernsback designed much of his first wireless apparatus himself including the Radioson Electrolytic detector and Leyden Jar variable transmitting condenser in 1906 and the famous Gernsback ROTARY VARIABLE CONDENSER in 1911.

It was in 1909 he formed the wireless Association of America which jumped to 3,200 members in only one year. In 1915 Gernsback began the formation of the Radio League of America and started publishing "Electrical Experimenter." In addition to his work as a publisher and prime mover in organized amateur radio, Gernsback was a tireless worker for legislation favorable to the amateurs and experimenters and most of the statutes relating to amateur radio are along his ideas. Most of the startling predictions he has made editorially have come to pass and he can certainly be counted as a great force in the growth of the modern radio and electronics.

FROM PAUL BEIDENHARN-WINMQ-COVINGTON, KENTUCKY

Shortly before the age of radio began I remember a small movie theatre on Holman street between 15th and 16th streets. I used to go up there and turn the hand-crank (before electric motors) on the movie machine for my admission. I would get real interested in the picture and I would slow down, and a loud cry would come from all the other kids: "Turn it faster, turn it faster," and I did, and things would quiet down.

In 1920 I remember the theatre, if you want to call it a theatre, that used to have outside gardens. In the summertime they would show the pictures outside, of course these were silent movies. They had a serial story going every week. It was called the "Lion Man." A guy wore a lions head over his own, and you never knew who he was until the last reel. This would be at the end of the season and then he would identify himself. One night I was sitting in my seat, watching the show, and a father of a friend of mine was also there, all looped up, and he pulled out a pistol and shot the lion man-right through the screen! He ended up in the caboose.

FROM HAROLD PRICE-FORT MITCHELL-KENTUCKY

"I first listened to radio in 1919 in Price Hill in Cincinnati. This was just after WW-1. I first met Jack Gray of WLW and Len Temple of WMH at the amateur radio station in the Union Central Building. I recall riding the elevator to the 27th floor and then walk up to the 30th floor for the station called SARS. This was in the top part of the building where it came to a point. At home I had a Kodak electric charger for the "A" battery and used three 22½-volt "B" batteries. My receiver was a Precision Equipment Company model and I used a Bristol speaker which was magnetic. The large receiver was a Kennedy model 110 called "Universal" and it was regenerative and tuned a range from 175 to 25,000 meters." said Harold.

In a picture that Harold gave me it shows Harold as a small boy listening to earphones and a bottle of vichy-water sitting beside him. I asked him "What's the bottle for?" He replied: "I use that to put out fires when the "A" wires short out!"

VOICES FROM THE AIR CAUSE ALARM-Urbana, Ohio, July 1922

Farmers working in their fields near Lewistown, far from any buildings, were recently astonished to hear market reports coming out of the air. Housewives had visions of burglars and ghosts when they heard voices in their attics. It was a strange phenomenon and needed investigation, so they dropped their work and followed the voice which seemed to come from the village. It led them to the Lewistown schoolhouse where crowds had already preceded them. The mystery was solved.

From the top of the school building the voice poured forth in great volume from the Magnavox of a radio receiving set located on top of the building. It was thought that the limit of radio service had been reached when the State Agriculture College made arrangements to place radio receiving sets in the offices of all county farm agents and then, through them, distribute market reports via radio to the farmers, but the Lewistown school has gone them one better.

The highest powered radio receiving set in Logan County was recently installed in the building at a cost of nearly \$500. The money was raised by Supt. B.A. Aughinbaugh who made the MINGO movies and responsible for the sale of products of the manual training classes and many other school activities. The set consists of a Westinghouse, Resistance coupled, two-stage amplifier set; a two-stage power amplifier and the largest Magnavox speaker obtainable. Last month Supt. Aughinbaugh, who has been experimenting with the apparatus, decided to test its carrying power. He placed the Magnavox on the top of the school building and tuned up on WJJ of the Detroit News. The sound began to roll out with such volume that people a mile and a quarter away declared they heard it plainly. One man was riding a plow in the fields and heard market reports coming from the sky. There was no one and no buildings near and he could not imagine what caused the phenomenon. A woman at work in her kitchen heard voices coming from what seemed the attic. She was too frightened to investigate. She was afraid of ghosts. Within a short time the street in front of the school building was crowded. So successful was the experiment that Supt. Aughinbaugh has announced that he will give out the daily program of the broadcasting station.

Farming isn't such a bad lot after all, at least around Lewistown, for while they go on with their field work they will be entertained with news, market reports and music from Dayton, Detroit, Pittsburgh, Cincinnati, Indianapolis, and many other places. The days of miracles seem to be just beginning.

FT. THOMAS ARMY POST

Established by Congress, 1887.
Constructed at cost of \$3,500,000
on about 3-acres, jurisdiction of
which was ceded to U.S. by Kentucky
Legislature, 1888. Post was designated
Fort Thomas, 1890. First Commander was
Col. Melville Cochran; first garrison,
two sixth infantry companies. Later
parts of 2,3,4,9, 10th infantry
Regiments were here, Now V.A. Hospital.



FROM FRED SCHABER-COVINGTON-KENTUCKY

I now run a complete auto-radio repair service shop in this year of 1969, but I can recall my earliest recollections of radio back in 1919. In that year of 1919 I visited the 10th infantry of the Army at Fort Thomas, Kentucky, I heard the old spark transmitters and listened to the coherer detector receivers. These were operating in the Army network, and later on they obtained some WD-11 type tubes and these were a lot more sensitive than the old detectors.

The antennae used was composed of three wires in a horizontal position and fanning out and downward to a single wire down-lead. The whole antennae system was suspended between buildings on the post. I couldn't copy code, but it sure was fun listening to it from there, It seemed like something impossible, and wonderful to me to hear signals coming through the air with no wires attached.

My first job was with the Midwest Radio company in 1927. They were located on 8th street where the Times-Star building is now near Broadway. As electric radio had not as yet come into widespread use we were building mostly battery-powered sets. The first tubes we used were the type called "Kellogg Tubes" and we called them "trolley wire" tubes

because the wires were attached at the top of each tube in such a way that the two wire were parallel with each other giving the appearance of trolley wires. The next tubes we used were the type 26, the first AC tube, and the type 27 which was the first to have an indirectly heated cathode.

I worked there clear through 1938. I became their manager in 1936 for the Chicago office. Cliff Maddox was the chief engineer and Mr. Welk was the production manager. Ed and Al Hoffman owned the entire company. Later on Waldorf Smith came in as chief engineer and he was assisted by Paul Smith. Some of the local people were Yate Deere, Bob McGrew, Joe Rice, and hundreds of other people still active in radio work were employed by Midwest Radio.

In the early days we checked the sets by listening on the air to them. We heard WFBE, WLW, WKRC, and WCKY. One of my favorite recordings was one of the Mills brothers because of the deep booming bass we could listen to and tell how our radios performed in actual use on the air with that deep bass tone.

During WWII I operated the War Emergency Radio Service (WERS) and my call was WKHO 51 for the mobile and WKHO-57 for my base station. We had hundreds of stations in the Greater Cincinnati area in this network. We used super-regenerative receivers and we had what we called "transmitter Hunts" about once a month. The object being to see who could locate a given transmitter in the shortest possible time. We worked mostly with the Red Cross. Our power was only one-watt and equipment was mostly home built. The frequency used was 112 MHz and we calibrated it by the use of Lecher Wires.

MASSIVE POWER BLACKOUT-November 1965

The modern radio proved its power was ample and it demonstrated this on November of 1965 when 8-states in the northeast were hit with a massive power blackout. This on a cold wintry night. 80,000 square miles of the U.S. without electric. 30,000,000 persons affected in eight states. A sixth of the Nation's population were in a cold, dark, and sometimes fearful plight. It stranded 800,000 persons for five-hours and more in black subway tunnels beneath N.Y.C. The newspapers said: "Transistor radios have taken a beating of late. Playing them in public was denounced as a ubiquitous nuisance, somehow related to the teen-age syndrome. Several cities have forbidden them to be played on buses and such. Well Sir, these little battery-powered marvels turned out to be the real heroes of the great north-western blackout tuesday night, bringing comfort, reassurance and advice to millions of Americans who otherwise might have panicked in the presence of the frightening and unknown. For one remarkable night, the rock-and-roll kid with the magic voice box became the wellspring of vital information, Which tends to prove, more or less, that in every nuisance, no matter how obnoxious, there is sometimes a virtue." from Nov. 12, 1965 Cincinnati Post

FROM HENRY KUHN-CINCINNATI, OHIO W8ERG

I was born in New York and came to Cincinnati in 1936. When I was a small boy my dad took me to see the shore station of WSL in Southampton. I think this was my first exposure to wireless at this instant. I was a very small boy and my father drove from Lexington to East Hampton out on Long Island in about 1925. We took a tour of the wireless station out there and we learned that WSL was owned by Mackay Radio. I remember I was frightened to death as we went up to this building. There was a noise which kept getting louder and louder as we approached the front door, which was open. It was in summertime. I didn't want to go in but my Dad picked me up and carried me in the rest of the way and put me down on the floor. The man talked to my Dad, but I don't know what they said, or what they said nor what the general conversation was. I do remember there was a huge table, way over my head, and I reached up and I couldn't see above it, as my Dad lifted me up so that I could see. I saw an enormous hand, or what to me looked enormous, pushing a thing called a telegraph key. To my small eyes everything looked large at the time. This key was immense, and everytime he pushed it this terrible noise would begin. I lost some of my fright because all I remember is that he hit this thing and this awful noise came on, and I heard the word "Wireless," and then we went out to the car. We drove home in this touring car, to our home in Bridge Hampton, New York. My Dad told

me this wireless was used to send messages across the ocean. I must have asked him how those signals got across the ocean because he told me they go through the air. We were sitting on the porch by then, and it was nighttime and I asked, as I looked up at the stars, "If there are signals up there can you see them?" I was looking for signals going across the sky. Everybody laughed, and that's all I recall about that.

RADAR-1922

Did you know that the principle of RADAR was recognized in 1922 by Dr. A. Hoyt Taylor and Lee C. Young? They worked at the U.S. Naval research laboratory in Washington. The Navy ordered RADAR for ships in 1936 and the first vessel was the USS New York in 1938. This RADAR recorded the Japanese planes at Pearl Harbor, but no hostile mission was suspected. During the 1930's the British alerted by the Taylor Young experiments, independently developed RADAR, which they called RADIO LOCATION.

TELEVISION- EARLY 1930's

Television was developed in the 1930's. The principle patents going to Vladimir Sworykin and Philo Farnsworth, who developed it independently and authorized by FCC in July of 1941. There were five months of telecasting to about 10,000 sets before Pearl Harbor. First commercial TV from Empire State Bldg. in New York in 1941. First stations were WNBT(NBC), WCBW(CBS), and the Dumont Company. The image orthicon pickup tube was developed by RCA in 1946. Mr. J.L. Baird, British inventor, completed his telechrome for color television in 1944, in the United States Peter C. Goldmark made contributions to color TV and CBS demonstrated a color system in 1946 and RCA in 1947. The first color broadcast of any duration was a one-hour program by CBS on June 25, 1951 over a network. Alfred C. Schroeder, of RCA laboratory at Penns Neck, N.J., received a patent for a tri-color tube in March, 1952, and assigned it to RCA.

FROM JIM WELLMAN-W8HSI-CINCINNATI, OHIO

I was born in 1923, and in 1928, when I was five years old, I can remember that we had one of the first AC receivers around. It was a floor model set, can't remember the name, but we used to listen to WTAM, the "Wave from Lake Erie" from Cleveland. I suppose about 20-miles from Akron, Ohio. I recall distinctly the program which was called "Jak & Lena." Gene and Glen were the two men who used to modify their voices to become that of Jake & Lean. Later on I remember "Amos'n' Andy" course that was in the same era too. We moved to Glendale then and still had the radio and I heard the Jimmy Scribner show and Walter Winchell way back there. As far as amateur radio goes I first got interested when I found out what it was when I was ten years old.

I used to tune around 900 kilocycles on our old Philco radio, a five tube job, which was quite ubiquitous for those days. I would hear W8JFC, That's Benny, and he lived up in Crescentville in those days. I would hop on my bicycle and ride all the way up there to his shack which was on a farm. That got me interested in amateur radio about 1934. I finally got enough nerve and went downtown to take the FCC exam to get a license. This was in the old postoffice building at Third and John Streets and if I remember correctly it had a dirt floor. I was just a little squirt sitting there trying to pass this exam, and I found out I didn't know anything about radio. I thought I did, but as it turned out I had to do a whole of a lot of studying to pass it. I'll never forget one of the questions "How are you going to determine the frequency of your transmitter?" and the answer, of course, was to use a wavemeter. Everyone of those words about floored me, I just didn't know what they were talking about.

Before this, in 1930, we had a crystal receiving set and I heard the 500,000-watt voice of WLW loud and clear from Mason. We lived only ten miles from it and had no trouble picking it up, but, of course, our house lights didn't light up like they did at Mason with all that power

FROM CARL DETMAR-W8NCV-CHIEF ENGINEER WCIN-CINCINNATI

I was first licensed in 1934 and previous to that my radio experience was in building receivers. These were initially receivers with an oatmeal box wound with wire

and a galena crystal for a detector. This occurred back in my teens in the late 20's. There were just a few radio stations on the air at the time, or at least that I recall now. This was before 1927 and shortly after that I obtained a vacuum tube and built a two-tube set using earphones. There was a program on the air, I think from WLW, called "A Step On The Stairs" and we separated the earphones so two people could hear at one time. We sure got a charge out of that program. I'll tell you.

Later on these earphones were put in a large bowl and this produced the effect of a loudspeaker which enabled several persons to hear at once and we no longer had to divide them up between ourselves. In order to get voltage to light the tubes I recall we used two wet-cell batteries and in order to charge them we used a rectifier consisting of an alkaline solution with two aluminum rods emerged in it. In that way we kept our filament batteries charged up and for the "B" battery we had regular chemical batteries with carbon and zinc composition.

PHIL WINTERS-K8THT-MAINTENANCE ENGINEER FOR KROGERS

Well Joe, my first recollection of radio was probably 46 or 47 years ago or about 1923. I was listening to a boy friend of mine whose father bought this one-tube crosley set, which had what we called a "book" condenser in it. It used a type WD-11 tube and was quite a marvel of a receiver. This really intrigued me back in my home in Sardinia, Ohio, about 50-miles east of Cincinnati. I heard WLW on that radio in about 1924 or 25. I became very interested in radio then and started to build a radio which would do this same thing. I remember there was a railroad wreck not far from our home and one of the flat cars turned over. It had been loaded with sheet tin which was destined to be used to manufacture Prince Albert tobacco cans. This was the load on the car, and when the wreck happened these sheets of tin were scattered all over the place. They left it there to rust so rather than waste it we picked it up and cut out pieces to make a variable condenser for our new radio. We made "stator" and "rotor" plates and put them together by using stove bolts between them, with a nut for a spacer, and somehow made one set of plates turn inside the other.

We wound our coils on an oatmeal box, which was the custom in those days. After seven attempts and a gift for Christmas of a vacuum tube, I finally got it to work. Miracle of miracles, I could hear WLW! I remember that my grandfather thought I was wasting my time and effort in doing this, but he was real impressed when I was able to get some of these stations and especially when he heard Herbert Hoover's inauguration in 1928. He was thoroughly impressed and he decided to give me \$1.50 to clean up this haywire set, which I had strung all around, and to buy an honest-to-goodness piece of real bakelite for a front panel. I then built it all over again. I was very much interested in radio and decided to become a radio engineer. That is what I started to do when I went to college. This was to be my avocation, but I guess I never got around to it. Amateur radio has filled in the gap for me and has been my hobby ever since.

FROM JAMES RANNEY-WLKER-TRANSMITTER ENGINEER WCKY

I am speaking from the 50,000-watt transmitter of WCKY which is across the Ohio River from Cincinnati at Crescent Springs, Kentucky. I've been an amateur radio operator for over 30-years now and my first call letters were W8QQJ licensed to Silver Lake, Ohio, in 1935. I was prompted to do that by my grandfather who was an oldtime telegrapher for the Pennsylvania railroad for some 50-years. He taught me the code. I didn't know it at the time he was teaching me the wrong code. It seems the railroads used what is known as the landline Morse Code and radio used International Morse Code. I tried to listen to the radio and copy the code and found out I simply could not do it. So I had to learn all over again.

My greatest thrill of radio was when I built my first one-tube receiver and a one-tube transmitter. The transmitter used a type 45 tube in what was known as a TNT circuit. I used absorption modulation early days on my transmitters. When I built a radio receiver I had a test to see if it really worked. I simply tuned to KFI in Los Angeles and if it received that station, then it was a real radio.

December 1, 1924-----

Few people reported hearing foreign stations on the last night of the international radio-test. All American stations were supposed to be off the air, but a few stayed on. 6KW in Tuenucu, Cuba, was heard. Garden City, New York, headquarters of the test said that station WAX, The station in Petrograd was received in Kentucky. It will be several weeks before "Radio Broadcast" will be able to read all the reports of European stations heard.

July 6, 1929-----

Possibility of a new radio station to be known as WILG to be constructed at a cost of \$15,000. The I.L. Greenwald and Son Company will be the builders. Greenwald, doing business as I.L. Greenwald, Inc., made the application for a station which was to have a power of 500-watts with unlimited time. Station to be situated in or near Comargo In Hamilton County.

May 12, 1922-----

From Washington comes word that the Annapolis Naval Radio Station has succeeded in flashing a time-signal around the world without relaying, using a wavelength of 17,145-meters.

FLASHED FROM 1923---

Now comes word of the astonishing statement that the waves of a radio station are a stimulant to plant growth. The "Before & After" or the "With and Without" exhibits to bolster the claims are not as yet forthcoming, but the New York "Evening Mail" asserts that "it had been discovered that vegetation on farms in the vicinity of a radio station is so stimulated by the radio waves that it takes on an uncommonly large growth and reaches maturity sooner than under ordinary conditions.

1925-----

This is not startling, if true, and in these radio days, nothing seems incredible. It should be recalled however, that so staid and conservative a sheet as the "Review Of Reviews" published 20-years ago made the observation that as Marconi had heard the code-taps of a single letter across the Atlantic, the coean cables might just as well be coild up and sold for junk. Quite a few miles of cables have been laid since then!

September 1924-----

A talk will be given over radio station WLW this Saturday by A.A.Herbert, field secretary of the American Radio Relay League.

SEPTEMBER 1924-----

William Hengehold, secretary of the Union Central Radio Assn. reports an amateur in Covington, Ivo Depenbrock, heard LHT the radio station on an Italian ship in the Mediterranean Sea, talking thrusday night to British 2GK. Ivo is the owner of amateur radio station 9APS.

Bits and pieces from 1924-----Fred Smith the singer and WLW director talked to the amateurs and broadcast listeners Friday night on "International Language."... Talks by Alvin Plough, publicity director of WLW, on local interference, and by H. Gordon Gano on his invention, "The Attenuated Oscillator," opened the ARRL convention this afternoon.....With greetings of a score of radio amateurs who arrived in Cincinnati for the ARRL convention on the 24th early Saturday the local club got down to business at the H tel Gibson at its meeting. Inspection trips were arranged to visit the radio broadcast station WMH at Peebles Corner....An airplane flew over the Gibson H tel satmrday carrying a receiver and persons on the roofs of the buildings and on the street heard WLW's broadcasts through the loudspeaker on the plane. Lieutenant Hugh Watson was the flier.(remember Watson Airport at Lunken?)

FROM FRANK WALKER-8FP-the year 1912-IN EMANSTON

I used a ford spark coil for a transmitter in my early days in radio in Cincinnati. The goernment said we could the frequencies higher than 200-meters as they were of no value anyway. Well, we got on those higher frequencies but to tell you the truth we had no real method of telling exactly where we were. We didn't have any known way to calibrate our frequency. We used what was known as a "loose Coupler" for the coils and found that Galena, or lead, were the most xentitive detectors. I worked Dayton, Ohio, both nighttime and daytime with this crude equipment. Later on I talked to the sate of Nebraska too. It was Harry Baeckel, of the radio station at Peebles Corner, and who had his radio parts store there, whom I bought parts for my set. I bought the famous "Brandes" earphones there, and you name it, and he had it. He had built the station WMT in 1919 on these premises.

At the beginning of World War 1, the government sealed all our radio gear up for the duration in 1914. I was going to Woodward High School then on Sycamore street in those days and we had a modern radio set-up there. We talked all over town with it. The spark signals sounded like a rough sort of buzzing noise except the rotary-gap which had a distinctive 500-cycle note and was easier to copy.

One of the loudest signals heard in Cincinnati was old 2RK from New York. You could hear him most anytime, he ran almost 5000-watts and had a good antennae right on the ocean. His keying and "fist" were almost flawless to copy.

In 1914, long before the vacuum tube I listened to ships at sea. Using only a galena detector and most of our efforts were put into erecting the best possible antenna thus making up for the lack of a good receiver. When modern sets using tubes came into being it was seen that the spark transmitters had to go because they caused so much interference and racket. In those days we made our own "B" batteries by using either test-tubes or pint jars with aluminum as the anodes. We got 1 1/2-volts from each and by series arrangements we obtained as high as 800 volts for the tubes. This took over 500 of these jars in series to do this so you can imagine we had quite a few sqaure feet devoted to these jars.

FROM ELY GROSSMAN-1921

I was interested in radio back in the 20's and sold parts for many of the early parts houses in Cincinnati. I later worked for United Radio on Vine street and then later on for myself in the radio repair business in Norwood. In my early days if I used the word "Radio" people didn't know what I was talking about. There wasn't such a thing. Radio stations didn't really have separate frequencies like now, there were just two wavelengths used. One was used for entertainment and the other for giving stock market reports, weather, etc. You had to wait 15 or 20 minutes while they made changes to switch from one wavelength to another. Some of the listenres had the same problem and couldn't find the station after they did change wavelength so they missed the whole program too.

I built a 1-tube set and heard old KDKA, Pittsburgh, WJR, Detroit, 2 chicago stations, WGY and later on I heard California. That was quite an achievement and I really got a thrill out of that. I lived in Cincinnati all of my life.

My mother promised me I could have the oatmeal box if I finished eating my rolled oats. I ate and ate, until the box was empty and then I used it for my coil in the receiver. To this day I cannot face a dish of oatmeal. I guess I stuffed myself in order to get that box in my youth.

FROM JACK RIETHE WSHQK-NORWOOD, OHIO 1926-27

Some of my earliest recollections were of hearing WSAI here in Norwood in the early days with a crystal set made by my uncle. It was mounted in a very large box about 3-feet long, and 2-feet wide, much larger than needed. It did look impressive though. There were only so many part you could make a radio with anyway, so most of the room was wasted. We used multiple earphones attached to small springs so that more than one phone could be used at a time. The coil was tuned by tapping the circuit and using a switch to select how many turns we wanted to tune to a given station. We could hear all the Cincinnati stations plus one in Hamilton

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around 1926 or so. I recall we lived across the street from a railroad track and every time a train would go by it jarred the catswhisker loose from the crystal and we lost the station.

FLASH-FROM OUT OF THE PAST

November 1, 1922-Post News bulletins will be broadcast from station WMH, the precision equipment company station at Peebles Corner, this Friday at 11 AM and at 4 PM. WLW will carry these at 8 PM.

December 3, 1924- The erection of a radio station will begin December 4th this year at the plant of the Page Organ Company in Defiance, Ohio, and it will be a 500-watt station and later increased to 1000-watts.

December 7, 1924- Photographs were transmitted from London to New York last Sunday.

1924- Patents granted- tube tester by George Crison of Hackensack, N.Y. An oscillator/detector to Albert Bowman of Wintrop, Mass...a receiving system patent to draw current from an electric power lines to Harry Rugh of Chicago. A radio-telegraphy system to Leonard Fuller of Barberton, Ohio. An amplifier for using a telephone headset to John Rhamstine of Detroit, Michigan and an "Oscillating attenuated Oscillator to a radio amateur in Cincinnati, Mr. Gano.

December, 1924 Fred Smith who directs WLW will begin singing on the air over WLW and accompanied by Mrs. Marjorie Smith.

Monday-December 8, 1925--KDKA in Pittsburgh will try a radio broadcast to the Pacific Coast with a relay inbetween.

December 9, 1924- A cheaper and more efficient loud speaker was introduced by George Lewis, general manager of the Crosley Radio Company, and it needs no battery, instead it uses magnets and the metal horn is replaced by a paper cone(MUSICONE).

Friday, December 18, 1924-SILENT NIGHT was observed in Cincinnati by all local stations staying off the air in order that local listeners could get out-of-town stations. Stations heard were: KFMG, KFVO, KPRC, WCBD, WKRC WLW KLDS AND WOL-these all heard in Chicago and Cincinnati

November, 1922 It was arranged with the Crosley Manufacturing Company that Emmet O'Toole will present a program of Irish songs sung in Gaelic. The first out-of-town RADIOFAN sending the translation of the words will be given two radio books as a prize.

September 6, 1922- Who was Dr. Mahlon Loomis? He is said to be the first man in the world to send wireless messages unaided by artificial batteries. This was in 1865, in Washington, D.C. and the messages sent were between two stations in Virginia, 18-miles apart. Charles Sumner introduced a bill in Congress, asking for 50,000 dollars to complete and make practical the discoveries of Loomis. In 1873 this appropriation passed and received the signature of President Grant, but Congress failed to provide the money, and the matter was indefinitely postponed. After 1873 and until his death in 1886 his struggles for the recognition of his discovery were singlehanded. His patents show that his basic principles were correct.

From Ed Konnersman--Ed reports that he used to spend quite a lot of time at the Amateur operator amateur radio station W8ARS. This was a complete station in W4LBX 1922 1923 contributed by the Union Central Life Insurance Company. He said he took an elevator to the 28th floor and then walked up a spiral staircase to the 30th floor. The elevator was in a separate partition, and they could hear the clanging noise of this elevator all night long. Ed said "I guess it was the people who cleaned up the place at night who used this elevator." Then Ed continued: "In the early days we had what was known as a quenched spark gap transmitter. Later on, Elmer Schubert and some of the other boys re-vamped it and put in rectifiers for the power supply. We had a 100-watt rig

using the 1000-cycle tone for code. That thing really got out nicely. Our antenna ran out from the back end of the building, not from the annex and was simply dropped down the sloping part of the roof where it came to a point. We probably had the only antenna in the world which was vertical, but was fed energy from the top instead of the bottom!

There was a chap by the name of Bill Hengehold, W8CQJ, connected with the club and also Bob Booth who now in 1970 is the general counsel for the ARRL in Washington. Not to forget Mill Threm, who lived up on Vine street near Inwood Park almost to McMillan street. In those early days we all had DC and Bill Threm built some batteries called AIDFEN. The name came from his amateur call of W3FN, phonetically this came out to the sound of AIDFEN. The batteries were in banks of 48-volts each, 24-cells in each one, and it was quite something to have, say five of these banks, and end up with 250-volts of pure DC. If more voltage was needed you could even series six of them and have almost 300-volts. This was enough to put on the plate of a type 203-A tube. This was quite the thing, even better than a full kilowatt transmitter. Most of us used an old Ford Spark Coil when we started out in radio. We made our own condensers from plate glass with tinfoil on either side for capacity. We keyed the rig with a straight key right in the primary of the coil, although this gave us a very rough note. The best distance I worked with this was to a fellow named Bernard Anderson out in Latonia, Kentucky. I talked to him four or five times in the evenings. Two stations just a little bit closer to me in Covington were ones' built by Bob Osborn and John Wisnall. One was about two-miles away and the other a mile-and-one-half. If nobody else was on the air I could work them consistently, but if there was any kind of interference that was the end of me and my tiny little rig.

I recall some of the first vacuum tubes that came out in the 20's. The UV-201 and the type 200 which was supposed to be a special type of detector tube. Both tubes used a six-volt filament and drew 1-ampere each. The plate voltage was 90-volts maximum on each. New types came out called UX-201A which was a 250-MA filament at six-volts, and this was quite a savings on the "A" battery. We worried about this "A" battery because none of us had a charger so we had to take them to the nearest garage to re-charge them. It paid to switch over to these tubes just to save on the battery.

REMINISCENCE by George Ginandt-W8AXY-Cincinnati, Ohio....

I recall the excursion boat used on the lake in Burnet Woods near U.C. Each ride around the lake costs two cents. One day I was watching the boat when it suddenly stopped. The operator found the engine had a defective coil in the ignition and was about to throw the old one away when I hollered: Can I have that? Well, I got it and guess you could say a radio career was launched when I "captured" this coil. It became my first transmitter and was reported by other radio operators that I had a 200-cycle note. All I found wrong with the old coil was that the vibrating reed with the metal contacts had broken, and all I had to do was re-bend them to make it work.

I needed some number six dry cells, that's the large ones, so I scrounged some at the local streetcar yard on Winchel and Patterson streets. This was called the Harrison Avenue yards. The batteries were almost used up after so many months being used to ring the bell on the cars to tell the motorman when you wanted off the car. I found that I could get enough voltage to operate the coil if I put them in a series arrangement.

My first contact was with Frank Dierfinger, 8APV on 441 McMicken Avenue in the year 1921. This was a distance of almost a half-mile from me and I thought that was really something to be able to do that. Frank used a silicon detector with a catswhisker. He had bought it a place called Resuters which was located on the west side of the alley on sixth between Main and Walnut streets. It costs 35¢. I remember how proud I was of a pair of "BRANDES" earphones I had purchased for \$7.50 in 1920 too. I had saved for a long time to get this, as money did not come easy in those days. The Navy type would have cost about \$11.00. I used Number 16 hard-drawn copper for the antenna and for most of the other parts the local junk yard had an ample supply of the necessary goodies.

I recall a contact with a man by the name of Pollard who lived up the street next to the police station at Ravenna and McMillan on the second floor.

I remember when Pollard transmitted the roof of the Police station would light up with a blue glow which looked like the corona discharge from lightning. This was most likely caused by the reaction of radio waves from a spark transmitter and the slate roof. You could actually read his code by looking at all the homes on the street and seeing their lights dim when he pressed the key. I recall that station 8APV used a "kickback preventer" so that his telegraph key would not spark so much. Pollard also had a helical transformer mounted on glass insulators screwed to the wall with half-inch brass or copper ribbon for the helical coil. It was a most beautiful job to see and to copy on the air.

1920 LIST OF STATIONS IN THE CINCINNATI AREA

8AEE.....J.A. Marien & H.H. LAYRITZ 2269 Harper Street, Norwood, Ohio
 9AEM.....C.W. Lucas 248 Shoemaker avenue Detroit, Michigan
 8AFS.....D. Baler 3205 Gilbert Avenue, Cincinnati, Ohio
 8AHX.....G.L. Wright 1946 Hopkins avenue, Norwood, Ohio (became first police radioman)
 8ATZ.....H.T. Smith 123 Springfield Pike, Wyoming, Ohio
 8ALN.....George Hussey 127 E. Third Street, Cincinnati (in 1970 he is KLCJS)
 8AMI.....R.B. Kyle 2890 Ziegler Avenue Cincinnati
 8ANB.....C.P. Goetz, 1128 Atwood avenue, Cincinnati
 8AOC.....F. Schaefer 1716 Vine street, Cincinnati
 8AOL.....R. Folzenlogen 1714 Queen City Avenue, Cincinnati
 8APD.....W. Ward, 4603 Ward Street, Cincinnati
 8APR.....S. Rieman 2287 Loth Street, Cincinnati
 8APV.....Frank Dieringer 441 McMicken Avenue, Cincinnati
 8ARS.....Union Central Amateur Radio Club, Union Central Bldg. Cincinnati
 8AXA.....William L. Reese 2311 Ravine Street, Cincinnati
 8AXK.....Frank Walker 1626 Potter Place, Cincinnati
 8AYU.....Homer G. Gano 3300 Elland Avenue, Cincinnati (obtained a patent on oscillator)
 8AQE.....Corryville-name unknown
 8BCZ.....George F. Hall 5135 Main Street, Norwood, Ohio
 8BES.....Charles E. Underhill, Jr., 538 Howell Avenue, Cincinnati
 8BFB.....Robert Wettengel 8443 Curzon Avenue, Cincinnati
 8BGU.....Ferdinand L. Westeimer 3708 Washington, Cincinnati
 8EMB.....Frank M. Jarver 2842 Stanton avenue, Cincinnati, Ohio
 8BNK.....Thos. G. Colvin 220 Southern avenue, Cinti.
 8BNR.....Alfred Tucker 4732 Franklin avenue, Norwood, Ohio
 8BSH.....James C. Batheny 5120 Globe avenue, Norwood, Ohio
 8BUY.....Hughes High School corner Clifton and McMillan, Cinti.
 8BVB.....Howard A. Gates 2905 Observatory avenue, Cinti.
 8BYD.....Louis Grabensteder 2767 Observatory avenue, Cinti.
 8BYO.....Robert M. Turrell 506 Broadway, Harrison, Ohio
 8CAB.....Roger E. Schlemmer 8442 Curzon avenue, Cinti.
 8CEK.....Lawrence McDowell 6271 College Vue Place, Cinti.
 8CHB.....James L. Hearn 3345 Harrison avenue, Cinti.
 8CHJ.....William Vogel 3319 Observatory avenue, Cinti.
 8CCP.....George J. Gray 339 East Third street, Cinti.
 8CKZ.....Marshall Barnum 3839 Isabella avenue, Cinti.
 8COJ.....Wm. J. Hengehold 3951 Trevor street, Cheviot, Ohio
 8CR.....Crosley Mfg. Company 5723 Davey Avenue, Cinti.
 8DK.....Michael M. Weisensee 2624 Dennis street, Cinti.
 8DL.....Norden Daubenbis. 2638 Dennis Street, Cinti.
 8EB.....Russell M. Blair 3930 Ivanhoe Avenue, Norwood, Ohio
 8FN.....William C. Babcock 112 Head street, N.Y.
 8FN.....(re-issue) William Threm 2325 Vine street Cincinnati
 8JI.....Walter C. White 1802 Josephine street, Cinti.
 8NS.....Elmer Hess 4129 Carter, Norwood, Ohio
 8NW.....John F. Eckel 933 Bank street, Cinti.
 8PH.....Alfred G. Hoffman 3423 Dury Avenue, Cinti. (became head of Midwest Radio 1919)
 8QA.....Herbert I. Lape 129 Springfield avenue, Wyoming, Ohio
 8QK.....Donald E. Schellenback 204 Elm Street Wyoming, Ohio
 8RJ.....Nelson C. Lewis 2921 Urwiler avenue, Cinti.
 8RW.....Howard Pendleberry 802 N. Main Street, Niles, Ohio
 8SJ.....Miles F. Bruning 2482 Mt. Pleasant avenue Hamilton, Ohio
 8TW.....Gilbert Brockman 522 Riddle Road, Cinti.

8UC.....Paul Graeter, 967 McMillan street, Cinti. (Graeter's Ice Cream)
 8CWH.....Harles F. MacNish, 4504 Hector Street, Cinti.
 8CYO.....Doyle C. Swartzel 2121 Burnet Street, Cinti.
 8DAG.....Howard S. Pyle 2354 Glenside Avenue, Norwood, Ohio (Became FCC inspector
 8DAK.....Edward P. Durr 4730 North Edgewood, Cinti. noted author)
 8AMV.....Ralph G. Folzenlogen 1714 Queen City Avenue, Cinti.
 8BEH.....Frederick C. Marx 541 Evanswood Place, Cinti.

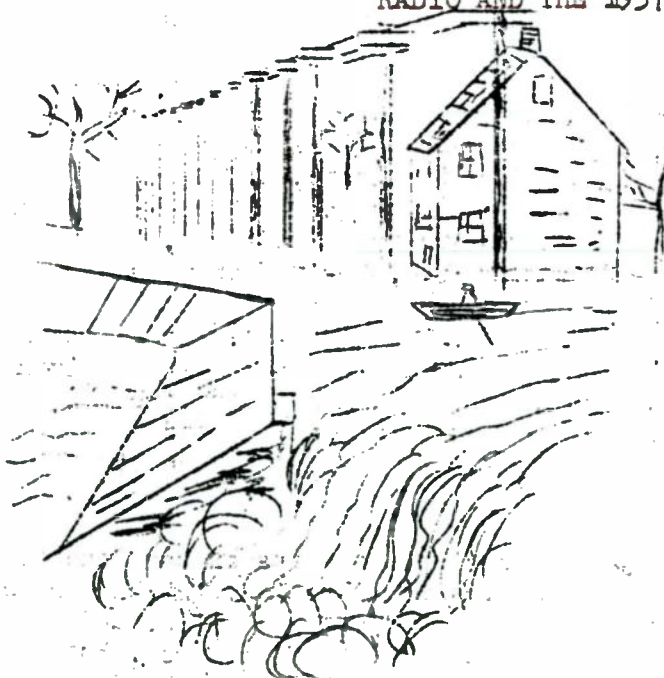
November 22, through 29, 1922---A newspaper article stated that "All representatives of any worthy or charitable movement who may have a message to deliver to the world may broadcast it from Music Hall during the Radio & Accessory Exposition this week."

November 9, 1922---Frank H. Stevenson, pastor of the Church of the Covenant at Eighth and Elm Streets, whose sermons are being broadcasts by radio, has received letters from new members of his congregation in North Dakota who live in a log Cabin. They said it was the first church services they had heard in ten-years.

November 17, 1922--The survival of the fittest soon will begin to take effect in the radio-broadcast field. This is the belief of official observers in Washington, who have watched the number of broadcasters grow to 6000 this year. They say it has almost reached its high.

They see a gradual decrease of Class-A stations. The Class-B station is obtaining the approval of the Government for Concerts. Little encouragement is given to Class-A stations. On March 1 there will be 548 broadcasting stations in the Class-A on 360-meters. California had 70, Ohio with 35, and New York with 31.

RADIO AND THE 1937 FLOOD IN CINCINNATI



Until the advent of radio man's voice could only be heard just as far as the wind could carry it. With radio, not only could he be heard farther, but, be heard by many more people. This ability to be heard past one's own sense of natural hearing was used from the first conception of wireless to further safety at sea and for the military. From this developed what is known as "public Safety" services and the opposite service of "entertainment broadcasts."

There have been numerous instances of radio amateurs communicating during disasters as far back as 1910. These are termed "point-to-point communication; from one station to another station. In other words a broadcast is a casting to the sands, or a one-way transmission, whereas the communication between two

or more stations is point-to-point, or two-way transmissions. General information can be disseminated by broadcasting to a wide segment of people. In two-way radio work it means that information can be given back to a base station, or vice versa, and directions can be exchanged so as to arrive at a definite conclusion. One-way transmissions are limited to just general information as to conditions which prevail and nothing can be done to alleviate these conditions. Both of these types were used during the 1937 flood for the first time. It must be realized that there were no police, fire, or other radio services which had two-way radio

except for radio amateurs. It was upon this service that the brunt of flood communications fell. The Cincinnati Police had one-way radio and this handled only work which pertained to police. They didn't handle relief work but only police work relating to burglary, looting, and things of that nature. Other services had to be hurriedly drawn from other people to perform the myriad duties which arose.

All the Cincinnati broadcasting stations participated to a limited degree except for the real voice of the flood, WCPO. This station turned over its entire facilities for the duration of the emergency. Other stations sandwiched flood news in between their other shows and newscasts.

I made a recording to do with the flood and the following is that account transcribed to this paper.

"Again raging waters have brought tremendous loss and deep misery to peoples of cities, towns, and villages withing reach of the mighty Ohio and Mississippi Rivers. Again, the radio-amateur has rolled up his sleeves and taken over the huge task of establishing an emergency communications network. He has braved danger, gone without sleep, and stuck it out all along the line because of an ideal. He has had as a motivating force that has seen him through many a tough spot the bright knowledge that he was upholding a fine and courageous tradition that is a gold thread woven through the history of amateur radio. The thread of gold is unbroken, the radio amateur has played his part, efficiently, effectively, and heroically. How well he has lived up to the traditions of his fraternity are written up into the pages of 'ALL-WAVE' radio magazine. They held up the presses so that they could bring the inspired first-hand account which was written by George B. Hart, who himself played an active part, could be included. (Mr. Hart was killed later at Corregidor during world-war-two). This story presented by Mr. Hart has been read by Major James W. Glore, executive officer of the Ohio National Guard, in the flood area, and bears his approval as an authentic and true account of amateur activities in the region.

I think most of us have walked down to the foot of Broadway, down the cobblestone embankment, and before you got there you heard the music of the Caliope. Most likely Homer Denny playing it. So we look away, look away, like the song suggests, to the Ohio River itself.

It is one of the largest rivers in the United States and the most important tributary of the Mississippi. It is formed by the confluence at Pittsburgh of the Monongahela and Allegheny rivers. From this juncture to its mouth, at Cairo, Illinois, the Ohio traverses 975-miles of the richest farming and industrial section of the United States. The drainage basin of this great stream exceeds 200,000 square miles. At Pittsburgh the river has an elevation of 1,020-feet above sea level, and between there and Cairo it drops 424-feet. On its course to the Mississippi the river separates the southern borders of Ohio, Indiana, and Illinois from the northern borders of West Virginia and Kentucky. From the north it receives the waters of the Wabash, Muskingum, Scioto, and Great Miami Rivers, and from the south the waters of the Kanawha, Licking, Green, Kentucky, Cumberland, and Tennessee rivers. Hundreds of small rivers also flow into the Ohio between its source and the Mississippi River.

When the Ohio River was discovered its bed was choked with bars of sand and it was almost unnavigable in some part because of long, shallow rapids. The bars have been dredged out by the Federal Government and by the aid of canals, dikes, and dams the stream has been converted into a very important artery of commerce. But, because of the great variation in the water level between the flood and the dry seasons, navigation on some parts of the river is still precarious. The Ohio basin is subject to disastrous floods such as the of 1913, when more than 400 lives and property to the value of \$180,000,000 were lost. Often at the time of spring rains the water in the Ohio rises suddenly and overflows the banks, inundating the low farmlands and towns along its course. Many fine towns and cities are situated on the Ohio, and the river has been a prime factor in the industrial and commercial development of the greater number of them. The more important cities

along its course are Pittsburgh, Parkersburg, Marietta, Cincinnati, Louisville, Paducah, Evansville, Mount Vernon, and Cairo.

Now the Ohio River floods nearly every year, usually without inflicting much damage, but, in 1832, 1884, 1913, and 1937 losses were immense. After each flood, however, business has been lively after the river has gone back to bed. In 1832 the city faced an acute food shortage for several weeks when practically every warehouse in the highwater district was flooded by the river. After the 1884 and 1913 floods many wholesale warehouses were removed from the highwater district because of the heavy losses of stock and equipment and the subsequent loss of trade. In January of 1937 the Ohio River was in especially high spirits. It came up the terraces, crawled into the top stories of homes, and the nether parts of tall business houses and left reluctantly after doing damage to the tune of \$25,000,000."

The actual loss to industry in wages, cancelled orders, and destroyed records has never been accurately computed. Owners of factories in the Bottoms, Eastend, Riverside, Brighton, and Cumminsville industrial areas suffered the heaviest losses. In Cumminsville a disastrous fire which burned for 48 hours started when oil and gasoline spewn on the waters by overturned storage tanks ignited. The fire razed several factories and dwellings and caused damage estimated at more than \$2,000,000. The studios and factory of the Crosley Plant were ignited at this time with gasoline on top of the water right at the front door of WLW. Three months after the maurader left, however, only a few watermarks on buildings were visible evidence that the river had stopped to pillage Cincinnati.

From Pittsburgh to Cairo, from Rabbithash to New Richmond, from Louisville to Portsmouth, from Marietta to Charleston, all these knew about the Ohio River uprising. Even a song was written: "Something Always happens on the River." But the gayety of the songs were quickly forgotten in the gloom which prevailed in January of 37. The flood waters brought the city to a screeching halt. All economic life came to an abrupt end. It was very many weeks before things returned to any state of normalcy.

What were things like in Cincinnati in 1937? An answer to that is difficult to give in a capsule form. For one thing, it must be realized that the depression was still with us and vivid memories were still with us from the fall of the stock market in 1929. The economy had never fully recovered. To graduate from high school in the early 30's was to face a world where there were no jobs. What few jobs there were available were eagerly sought after by hundreds of applicants. I remember answering an ad for a truck driver at \$8 per week, and even at that low price I stood in line to get it with persons forming a procession three blocks long! If you made \$18 per week you were a capitalist. Bread lines were long at every fire house in Cincinnati. Life was a struggle for mere existence. Memories of bank failures, where you were fortunate to get back ten cents on the dollar, weeks later. Wages, in general, varied between \$18 and \$30 a week. I worked at Midwest Radio on Broadway as a trouble shooter for 32¢ an hour. My lunch was a quart of chocolate milk which sold for 12¢. No fringe benefits as we know them today, nor social security, but, it did produce a hardy individual who in later life was able to carry this share of the load. Andy Griffin had this to say on a radio program about life in the 30's. The program opened with the sound of a rooster crowing, and Andy said: "You know, I wonder when in history would be the best time to live? There is something good to be said about every age, even if people don't realize it at the time. For example, like if you ask somebody back in the 30's; 'Is this a good time to live?' He would say 'No! We got a depression, bread lines, dust storms, prohibition, and it's not a good time to live.' And, to tell you the truth it was a sort of bad time. But, there was some fun. There wasn't much money, but things didn't cost much either. There wasn't many things to do so the things we did do were all the more precious. Go to the movies, listen to the radio, a date. See nowadays it is just a date, but then, it was an event. Remember the songs? "Boo Who," "You've Got Me Crying For You," "Happy Days Are Here Again," and "Million Dollar Baby," and you found all that in the ten-cents store. How pleasant, how pleasant it is,

looking back, looking-back on today."

And the Sunday streetcar pass, for a quarter you could ride all day. Think of it, all day long for a quarter! From one end of town to the other. Down the Mt. Adams incline, and what a ride that was. Passing the car comping up on the other end of the cable. From the top at Rookwood Pottery to the foot at Locke street. Walking down Broadway, down the cobblestone approach to the Wharf. Before you got there, that ole caliope again, "In the Good Old Summer Time" and perhaps later on a visit to Emery Auditorium around 1:30 P.M. to hear the "Armco Band" under the baton of Dr. Frank Simon. The program was fed to the Blue network of NBC by WLW and sponsored by Armco Steel of Middletown, Ohio. The theme song was "A Whistler And His Dog." Now the streetcar is passing the Art Museum in Eden Park, and across the road from the car stop the natural amphitheatre where such bands as Walter Esberger, and Smitty's band played. The sound of children softly playing, the murmur of the soft summer breezes, the look of rapture upon the faces of listeners, their toes atapping, completely lost in the music. Some of these music shows were carried by station WCPO, who drove their sound truck up close to the band stand. Their equipment, by todays standards, was large and bulky and cumbersome. to say the least. Built for the most part by Western Electric Company.

Perhaps you used your Sunday Pass to take a trip to the Zoo on the Zoo-Eden car. All the attractions there; Opera, outdoors in that large white building. Remember the small German Band which played on the veranda of one of the houses there? I can hear it now: "I tried one day a piccalo to play..." Those were the normal times in the summer of 1936, but, thin's changed quickly on the following January of 1937. How bleak can things be? That winter will be remembered, From the Kentucky-Post of January 25th, 1937, we catch these headlines which were in the first edition after "Black Sunday" of January 24th. It rained all day that January of 1937 and the flooded Ohio steadily rose. The Headlines: "Floating Homes Hamper Relief Workers," with "Cities Gird To Fight Disaster," and "Workers Toil Through Night of Terror,": "Families Moved Out To Avert Tragedy,": "30,000 People Moved From Their Kenton County Homes."

The swirling black waters of the Ohio reached up with wet fingers to touch the lifes of everybody who lived in Northern Kentucky that January of 1937. The flood of that year was the worst natural disaster ever to hit this area. If you lived here then the flood is something you talk about in awed tones to your children or grandchildren. For, even if your home was not one the thousands covered or carried away by the waters, your comfortable way of life was certainly changed. Commonplace things, such as heat & light, no longer could be taken for granted. Even drinking water became precions and to be guarded by the drop.

The first hint of an impending flood came on Monday, January 11th, when the Kentucky-Post carried a headline "RIVER HERE RISING, REACHES 39.5-FEET." With the Ohio River carrying flood water, both above and below Cincinnati, making the river rise at a rate of slightly more than one-tenth of a foot per hour. W.C. Devereaux, U.S. Weather Department, said that the crest would not go above 45-feet. The flood stage in that year was 52-feet. It went considerably over that figure and the damage was unbelievable. Even the "POST" had to move when the river hit 79.99 feet. Firemen went on 24-hour duty for the duration of the flood. Policemen patrolled the city by boat aided by American Legion men who had been sworn in as deputies. The Suspension Bridge had to be sand-bagged to keep it open.

Some of the prices in the grocery store went like this: Tomatoes, No. 2 can, six for 72¢. No. 2 can of peas, three for 50¢. Large can pears, three for 71¢. Grapefruit, three for 43¢. Milk, three cans 10¢. 21 LB peanutbutter for 25¢. Iceberg lettuce at 5¢ a head and carrots 5¢ a bunch. 4-LBs yellow onions for 10¢. Brown sugar at 5¢ a pound and 3 light bulbs for 10¢. The 50-watt size. Coffee at 17¢ a pound and graham crackers at 19¢ for a 2-LB box. Leg-O-Lamb 27¢, with Chuck-Roast at 15¢ a pound. Boiled Ham 55¢. Mens wool suits for \$7.77 with two pair of pants and a 100-watt soldering iron for 19¢.

"Early in 1933 local industry and commerce began to feel the effects of a major depression. Payrolls were cut and thousands laid off. Across the nation rolled a wave of bank failures. The conservatism of Cincinnatians helped to ease the shock of financial circles and only three banks suspended payments. In 1931, as the economic upheaval reduced industry and commerce to debris, unemployed workers and professional people, their savings exhausted were forced into bread-lines. In Cincinnati, as elsewhere, unskilled labor bore the brunt of the depression. Soon the alarming increase in the number of persons on public relief roles made additional funds badly needed. The uncertainty and discouragement of 1933 are apparent in headlines excerpted from local newspapers. 'TRADING IS SLOW IN LOCAL MARKET,' AND 'SEE SCRIPT AS POSSIBILITY,' and in another paper 'DEPOSITS ARE DECLARED SAFE AS WITHDRAWALS ARE CUT,' and the next day, 'TRADE GOES ON AS USUAL-5% PER MONTH WITHDRAWAL LIMITATION' and 'FORD BRANCH IN CINCINNATI TO HALT OPERATIONS'-----'HOARDING PROHIBITED AS FOURTEEN LOCAL BANKS RE-OPEN.' But somehow the city muddled through. After the 'NATIONAL BANK HOLIDAY' in March the Federal Reserve Act was revised to prevent future recurrence of financial panic. Fear was checked, and Cincinnatians started rehabilitation. In 1937 the average yearly wage of the nearly 100,000 industrial workers in the Cincinnati area was about \$1,380. This about equalled the peak average of 1929. In 1932, when factory activity reached its lowest depression level, the average was only \$945 per year for Cincinnati's 68,247 industrial wage earners. Such was the scene in Cincinnati that January of 1937 when the greatest flood in Ohio history was to pile calamity upon calamity on top of the Cincinnati people."

(from "They Built A City", 1938)

FLOOD FACTS AND FIGURES

Thursday, January 14-Families flee little Miami River when Ohio reached 44.8 feet at 4 P.M.

Sunday, January 17- Heavy rains swell Ohio river.

Wednesday, January 20-River at 59.9 feet at 5 P.M. with heavy rain.

Thursday, January 21-River leaps to 65-feet.

Friday, January 22---1913 crest of 69.9 feet reached at 9:30 A.M. and 1884 crest of 71.1 feet reached at 3:30 P.M.

Sunday, January 24th-"BLACK SUNDAY" with 2.55-inches of rain in 24-hours. River stage at 79.58-feet. Fire and explosions beset Crosley Radio plant and the Standard Oil Company tanks. Electric power off except for public institutions; water rationed; stores ordered on "Holiday Emergency" basis.

Tuesday, January 26- Record crest set at 79.99-feet at 2 A.M.

Friday, January 29---River at 77.2 feet at noontime and President Roosevelt pledges disaster aid; flood zone closed to all those who do not possess permits to enter.

Saturday, January 30-River at 75.5-feet; mop-up brigade goes into action.

Monday, February 1- River at 70.42-feet; first generator in power plant started.

Wednesday, February 3 Water turned on and lights again permitted.

Thursday, February 4 Stores open from 10a.m. till 3 p.m.

Friday, February 5--Business as usual.

PERSONS DRIVEN FROM THEIR HOMES: 61,600 in Cincinnati; more than 100,000 in greater Cincinnati.

DAMAGE: Unofficial estimate of property damage was \$25,000,000.

AREA AFFECTED: One-Sixth of Cincinnati including lowland along the Ohio, the Little Miami area, Big Miami area, and Mill Creek. Retail business district and "seven hilltops" not flooded. In the aerial photos taken during the flood the entire city looks flat as all lowlands are filled with water and only the hills stand out.

The rest of this account is supplied by many individuals. Richard Walker, a longtime engineer of WLW, whose amateur radio call is W8BRQ supplied the information of the operation at the University of Cincinnati station W8YX.

Dick was an engineering student during the flood year of 1937 and the pictures are also supplied by him. Another contributor was Commander Elmer Schubert, USNR, W8ALW, of the U.S. Naval reserve unit in Cincinnati. Much material was gleaned from the inspired account of George B. Hart who lived at that time in Silveston, and who was the chief operator at the Ohio National Guard Armory. He was killed during World War two on Corregidor as a member of this same Ohio Guard Unit. Some of the material was supplied by the Union Central Life Insurance company as they were the chief focal point of operations with their own water and electric. Other individuals will be identified as they give their accounts separately.

First, let's look in on one of Cincinnati's foremost radio announcers, Nelson King, and listen as he explains the part radio played in this 1937 flood. Nelson was telling about his early days where he had started on WPAY in Portsmouth, Ohio. "Hi, this is Nelson King and I am reminded that the 1937 flood was the turning point for the little old 100-watter in Portsmouth, WPAY. The Shelby Shoe Company along with the Wheeling Steel and the Williams Shoe Company was one of the three big employees in Portsmouth at the time, and they had hundreds of people on their payroll. Since the town of Portsmouth was completely inundated at the confluence of the Scioto and Ohio Rivers it had quite a time of it. When it seemed absolutely certain that the water was going to come in and cover the whole downtown area, in the basin, the Shelby Shoe Company didn't know how to get in touch with their employees to get them to help move their entire stock of leather used for making shoes. This stock was stored in the basement and through a continued series of emergency announcements was able to garner voluntary help needed in moving this stock. They did get it moved and didn't lose one bit to the rising waters. Consequently, when the flood subsided, the Shelby Shoe Company was able to go back into somewhat limited production as their supplies were still intact. Out of gratitude for the wonderful job which WPAY had done the Shelby Shoe Company built some beautiful new studios on the second floor of a building on Gallia Street, and with a brand new radio-tower atop the company's building."

"I had left Portsmouth in 1936 shortly before the 1937 flood in January. I got a job as an announcer at good old WSAZ in Huntington, West Virginia. I stayed there until after the 1937 flood, and then came to WCPO in Cincinnati. While at WSAZ, where I worked as an announcer, I found the studios located on the fourth floor of the Keith-Albee Theatre building. I'll never forget the chief engineer and myself taking out the big Wurlitzer Organ which was situated in the orchestra pit of the theatre. We started to cut each wire, which were in pairs, that connected between the organ and the amplifiers back stage. This was called the Organ loft. Well, we started to cut each pair of wires that went to this organ loft. We tagged each one, finally had to take a hacksaw and cut through the whole cable. This cable was about 4 1/2-inches thick, so you can imagine how many pairs of No.26 wire were in this! We tagged each pair, as I said, but, even so it took us six-months to put this back together after the flood waters had gone down. Incidentally there was seven feet of river water on the stage of the Albee Theatre.

It came to a point where we took a row boat from the apartment to go to work. Just the two of us worked here as the rest of the people had been moved to the telephone company on higher ground at Huntington. They were working from the board room, or the connection room, and they had wires running from the board to the phones that were used so that people could call and ask for help, or to volunteer information.

Broadcasting, of course, in an event like this, becomes seriously and sincerely a matter of great emergency. Just the two of us, a fellow named Jack Foster and I, were the two who drew the duty at the studios. The salvation Army brought us there in a boat, a power boat, which came behind the apartment at the second floor level and when we stepped out of the boat we stepped on the Marquee of the theatre. Our activity continued for several days. Jack Foster later came to work for WCKY in Cincinnati, and I came there also in 1945.

This method of broadcasting lasted only about three days because we had to be constantly supplied with food and water from the salvation Army. We had one small electric heater in the control room and the two of us took turns curling up on the floor while the other was manning the controls. It was cold and damp and extremely hard to get any rest at all under these circumstances. The water was all along fourth avenue in Huntington and finally we were evacuated, you might say, and taken over to the telephone company where we joined the rest of the crew. Our normal staff was nine persons and at the height of the flood we had 117 volunteers working. These volunteers were those who manned the telephones, typewriters, and who saw that the messages got to us. We were acting as the sole means of communication in and out of this city. So we had quite a few calls from concerned relatives, parents, children, etc. The only way we could do this was to announce their whereabouts. We would tell others to get to the nearest telephone that happened to be still working and to call us.

Food and water, of course, were a problem, but stores who happened to be out of the flood area supplied us, without charge, all our needs. A catastrophe of this nature seems to band all persons together with a great feeling of brotherhood because you feel the necessity of helping each other regardless of creed, color, or race." So said Nelson King in a tape recording made in 1970.

Now from Portsmouth, Ohio, upriver we switch back to the Cincinnati area. Here is Jim Maddox who worked at WCKY and his account of the Cincinnati area as he saw it. "This is Jim Maddox trying to recall events which occurred 33-years ago. This was quite a flood. I remember on Monday, January 25th, receiving a phone call asking me to help the Army Corps of Engineers. The electric was off, the water was also, but we still had gas. I had volunteered for the Army Engineers. Powell Crosley had a Yacht on the river. He couldn't get his transmitter to work. I climbed over the railing of the Suspension bridge on the Ohio side to the deck of his boat. This will give you an idea on how high the river was. It was actually over the Kentucky approach but they had sandbagged it. We had about 20 or 30 radio-amateurs and I am sorry that I cannot recall all their names at this time. We did have Roger Burris, W8FIC, and myself who were working in this flood. We set up transmitters up and down in the Cincinnati district to give the Army communications with their field men at the office. They had to make recordings of the river height, flow of the river, speed of the current, and depth of the water, and also rainfall at regular intervals into the main office. Some of the men had to drive as far as 20-miles to get to the nearest phone which was still operative. On Tuesday I left for Fernbank dam to get on the SS Burnet which was a diesel drive job which was to take me to Carrollton, Kentucky, to set up a transmitter there. When we arrived we moved the equipment to the SS Scioto which was a steam boat. That was real living on the river. An interesting thing was in seeing men in John-boats pulling in large barrels of whiskey. One man had two barrels in his boat and was trying to pull in another. We heard later they had offered a \$200 reward for each barrel of whiskey that was recovered. These were from one of the Kentucky or Indiana distillers whose plants had been flooded out. The walls of these plants had collapsed and released all the barrels and they went floating on down the river. We spent about four or five days at Carrollton, and then I came back on another boat to help set upright some gas tanks for the Tressler Oil Company. The tanks had come loose from their moorings on the concrete foundations and we set them back on. I decided to get off the steam boat, with its coal fire, as I couldn't see the combination of fire and gasoline!"

As town after town found itself submerged by record crest of the Ohio River, some of the telephones and telegraph lines in these cities went out of service also. In Cincinnati, due to a very efficient telephone system they were able to maintain most of the communication over the wire lines. But the radio amateur operator manning their stations were deluged with official business and emergency rescue traffic. The National Guard and Naval Reserve nets were thus relieved of the barrage of personal messages that refugees and friends wished to send through W8YX the University of Cincinnati amateur radio station. W8YX was under the guidance of that Prince of fellows, Prof. Wm. C. Osterbrock.

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As W8YX and the UC staff took over the rescue traffic and another phase of the work load was taken by the Army Corps of Engineers with their station in the old postoffice bldg. at 8th and Walnut streets. It was W8FIC, Roger Burris, who established this station for official river traffic. Now W8FIC's call was used at this point with numerous volunteer operators helping out. It was my fortune to know Roger for many years and I know how fastidious he was in anything he undertook. He was an excellent machinist and precision worker and one of the early pioneers in broadcasting. In 1933, when he worked at the old Midwest Radio factory it was he who built a large public address system and which won first place at the World's fair held in Paris in the early 30's. Such was the nature of the man, Roger Burris. It was his whole radio system that was setup in the Postoffice. This was a temporary postoffice, as the old one was in the process of being torn down. With Roger was Walter D. Wilkes, W8nms, W8EFS, and Jim Ringland, W8JIN. There were many others who came down to help for a few hours each day and night. At Huntington W8MOL did a similar job for the U.S. Engineers there. W8FIC maintained schedules up and down the Ohio with other amateurs, the SS Scioto, USS Kentucky, and a patrol boat using the call WZBA in the coast guard. A station, W4LU, located on Signal Mountain in Tennessee who patrolled the 3950 KHz spot for W8FIC in order to insure the transmission of emergency traffic to the south. W8FIC reported that after the flood went down at Portsmouth, the river gauge was found in the top of a tree! Oddly enough, it seemed that long hours agreed with the operators, for everyone of the W8FIC staff gained an average of five-pounds the week they were on duty.

Another radio amateur, who I also knew, was John Thayer, W8AEH, of Norwood Ohio. A friend of his also was Jim Ringland, W8JIN, who did much work in getting generators to work on the river boats. There was a write-up in a local paper about John, and this will help explain some of the personal sacrifices made by individuals. "There was an outstanding operator and that was John Thayer, W8AEH. The Cincinnati radio operators take off their hats to. When conditions became such that operators were collapsing at their posts, and black Sunday became a reality rather than a fear, we asked ourselves 'where can we get a man who can handle the thirty to thirty-five word-per-minute traffic from the National Guard?' John Thayer was suggested as he was a former western union operator and owner of one of the best stations in the country. John Thayer accepted the generous offer of hard work at no pay, and set out in an army stationwagon for Batavia, Ohio. Flooded roads forced long detours as long as 150-miles longer than normal that eventually brought him and his chauffeur sargeant to New Richmond, Ohio. Roads from there to Batavia were under water, so John stepped into the breach at Station WLHI and aided in the evacuation of New Richmond. Then on to Bethel, to Columbus and finally back home in Cincinnati. W8AEH gave a week of tireless effort towards a cause whose only reward was a job well done and a word of thanks from men he had never met before. Out hats are off to a man, and a real radio-amateur, W8AEH, John Thayer."

In Cincinnati the Naval Reserve station NEG was already in existence when the flood began so no preparations were necessary. The Navy unit was under the direction of Lt. Elmer Schubert, W8AIW, and was situated on the 30th floor of the Union Central Life Insurance building. The elevator went as high as the 28th floor and then you walked up the next two floors almost to the top. As the roof was four-sided it came to a point and the floor space was restricted. There were three rooms and in one of these was located the transmitters, receivers, and operating desks.

The first amateur radio club station, 8ARS, was located here and also a station, W8NC, was licensed for the navy. The frequency used by the amateurs was 1936 KHz and the Navy used 2500 KHz. The Navy was linked with other cities up and down the Ohio River. Lexington, Louisville, and Paducah in Kentucky, as well as Ohio cities, Dayton, Akron, Toledo, and Columbus. There was a radio station at Huntington, West Virginia. Elmer Schubert told me: "We also used the call sign AX9B for the Coast Guard" and he continued, "We had good coverage and a good vantage point from which to see all around the area from this top floor." Elmer said "We had a 30-foot motor launch, the USS Winifred, which

operated in the 51st fleet division. There was no problem in communication at any time and the motor launch was used to bring food and supplies to marooned persons and also to rescue persons when needed. In the Union Central Bldg. they had their own electric supply system as well as a water supply and their own telephone system within the building. The telephone operating desks were on the first floor and the operators could patch us into any outside line or ring us from downstairs." Then Elmer said "As the 30th floor was up near the top, it was narrow, only three rooms were usable. We dropped a wire down to the 19th floor for an antenna and this may have been the first time that an antenna was driven from the top instead of the bottom! I had a portable five-meter battery operated radio. Water did get into the basement on the south side, but it did not hamper our operations. This building became the headquarters for all Red Cross work under the guidance of the President, Mr. Cox."

After the flood emergency was over the Union Central Life Insurance company issued a special bulletin and one of the items in it said this: "The relief work of the Cincinnati Chapter of the American Red Cross wrote a new and glorious chapter in its history of humane accomplishments. Not normally maintaining a huge organization, the Red Cross was faced with a gigantic task when the necessity of immediate relief work passed all anticipated heights. In response to a call for volunteer workers, trucks, boats, medical attendants, food and other supplies, thousands of volunteers with their much needed equipment poured into Red Cross headquarters in the Union Central Building. There might have been chaos and turmoil, but the Red Cross executives were ready with an efficient organization plan. With astounding speed and efficiency relief units were organized and began to function at once. All efforts were conscientiously and orderly directed toward one goal, HELP. And help there was, in abundance. Time, nor new events, can never overshadow the heroic work of the Red Cross, and their volunteer workers who so nobly gave their all in those critical hours."

Another station was set up in a music store in Reading, Ohio. It was on Benson Avenue next to the Millcreek bridge. Reading and Norwood both had their own electric and water supply systems. I'll never forget the terrible roar of that creek as I put up an antenna in the rear of the building. And on top of that it was pouring rain in never-ending buckets full! I've never seen so much water pour forth from the skies. Perhaps it seemed worse because there was so much water all around. The radio operation was directed by Hugh Thompson, W8ODF, and assisted by Glen Walker, W8PBE, and myself, Joe Rice, W8MFM/W4LRHZ. We were attempting to get on the 160-meter band to meet with the Union Central station on 1936 KHz.

An account of the work of the Cincinnati telephone company is told by amateur radio operator James Adams, W4ZOU, who is a switchman for the company. "This is Jim Adams, W4ZOU, I am with the telephone company. I work at the exchange at the Avondale and Harvey avenues. For 18-days, from January 18th to February the 5th in 1937 the Ohio River was above the 52-foot stage. It held a crest of 80-feet from midnight of January 25th until daybreak of January 26th. An estimated 13,000 telephone stations were put out of service at that time. Water and electricity were on a volunteer rationing basis. Telephone men worked around the clock to keep lines open. Sandbag dikes against creeping flood waters surrounded the central offices and only one telephone office was completely closed and abandoned. That was at New Richmond where the whole town was under water after the full force of the flood struck. Even when the water was within a foot of the second floor operating room telephone men raised the switchboard and frames 30-inches from the floor. Telephone service continued even as water was two-feet deep on the floor. When ordered out of the building January 24th, water covered the platform upon which the men were working at that time. Within a day or so water had risen to a depth of eight feet on the second floor operating room. Cots, portable heaters, and coffee pots, were the accepted furnishings of the telephone buildings. Outside the exchanges, portable power units, many obtained from local welding firms, stood by in case of failure of the regular power supplies. There were many accounts of telephone people calmly accepting unusual risk in order to maintain service. One outstanding feat involved the

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restoration of service to the important electric power plant down river at Columbia Park, Telephone men were rode to a terminal pole isolated in a vast expanse of swithly moving muddy water which would have been threat enough, but debris, including railroad ties swept past like battering rams and most of the work had to be performed at night. A pole-top cable was cut, and two lines strung to the top of a coal pulverizer building nearly 800-feet across the water. In the millcreek valley section, splicers working in a manhole fought to keep open broadcast circuits to WLW and WSAI. Gasoline fumes from ruptured storage tanks saturated the atmosphere. Work was nearly completed when explosions rocked the neighborhood and turned floating gasoline into a sea of fire. The men escaped harm taking their trucks with them. They returned hours later to complete the job. Overloads on telephone equipment often were more than 300%. The long-distance board at 209 West Seventh Street, where the longest straight line board in the world, handled 9,722 outgoing calls on January 22nd. This was a record set for the number of calls in those days.

Even while flood waters raised our suppliers were shipping the material in anticipation for unprecedented demand. Trucks and trains brought in every item from telephone sets to cable, to flashlight batteries. The work performed in keeping open telephone communications drew many commendations from individuals and commercial firms. Telephone employees earned another recognition too. This is called the "VAIL" memorial fund which gives out a special bronze plaque to groups for outstanding service during emergencies. The citation states in part 'Emergencies arose with such rapidity that it was impossible to note completely just what happened. Therefore, any account of this flood emergency can only be considered an incomplete story of what employees did to help meet the demand for service.'

It is Friday, January 22nd, and the newspapers were saying; "FLOOD PERILS LIGHT & POWER; NEWPORT PUMPING STATION OFF SINCE 65-FOOT STAGE; COVINGTON UNIT WILL BE FORCED TO STOP AT 74-FOET: LATONIA REFINERY CUTOFF BY WATER: RURAL COMMUNITIES FACE A WATER FAMINE: ALL LOCAL STREETCAR SERVICE STOPPED: ALL ROADS TO LOUISVILLE BLOCKED: A STUNNED CITY AWAITS 80*FOOT STAGE: GREATER CINCINNATI REELED-WORST FIRE AND FLOOD IN ITS HISTORY." At nine AM the river was at 78.97 feet. So overwhelming was it that a state of emergency was declared by President Roosevelt, and City Manager Dykstra who pledged all help necessary. WCPO, the "Voice Of The Flood" went off the air that friday, shortly before 10 AM for an indefinite time.

From the pages of "Building A City" we find these words: "Indelibly written in the memories of Cincinnatians are their experiences during this flood. Appeals to conserve power and light sent people to their attics in search of candles and kerosene lamps. The flickering rays of these modes of illumination brought many memories to old timers. Of evenings in the parlor during the 90's. Electric transportation was discontinued to help meet the power emergency. Buses were substituted and automobiles not on relief business were forbidden within five-blocks of the flood zone. Water became scarce and the city went on daily rations. Just a few pans full per day and it had to be boiled. Throughout the city, water wagons and concrete mixers made two trips daily to haul water. At the sound of a bell or cry of "WATER" housewives snatched the largest pail and went for their share. And bathing, one was shunned if he was found guilty of that offense. Business declared a holiday, for ten days only vital necessities could be bought. During this unforgettable era Cincinnati was not licked, it merely entrenched, it temporarily interrupted a regular routine of business to put 'Ole Man River' and his unharnessed imps of destruction back in their places."

Besides the Navy and Amateur stations located in the Union Central Bldg. there were other stations. At the National Guard Armory there was W8MGD; at the University of Cincinnati W8YX under the guidance of the prince of good fellows, Prof. William Osterbrock, W8CAU. W8FIC located in the old Postoffice building at 8th and Walnut was, as I said, in operation with the Corps of River Engineers. A network of amateur stations was quickly set up with the UC station, W8YX, as the nucleus. By this means vital communication between disaster ridden communities and the outside world was maintained.

Portsmouth in Ohio, Ashland, Maysville, and Louisville in Kentucky, and Aurora, Lawrenceburg, Vevay, and New Albany in Indiana along with Madison were either dependent upon Amateur Radio or had such inadequate communication facilities that for days amateur radio had to carry the bulk of important messages. The network created to handle this traffic consisted in the main of the following amateur stations: W9NKD at Carrollton, Kentucky; W8DGL at Wheelerburg just outside Portsmouth where W8DQM and W8KYQ cooperated. W9CHM at Shelbyville in Kentucky who had access to a telephone into Louisville; W9AEN at Maysville; W9KCZ at Fort Knox; W8LEK at Columbus, Ohio; W8CPE at Detroit, Michigan; W8AZH at Franklin, Ohio. This network was supplemented by coastguard stations LC9X at Indianapolis, LC9E at Evansville, and by Army station WLM at Washington, D.C. Broadcast stations WCKY, WKRC, WCPO, and WLW helped out considerably. WHAS in Louisville, Kentucky, and WHIO in Dayton, Ohio. The American Airlines placed all their communications facilities at the disposal of W8YX at UC. This greatly relieved the congestion of messages to be handled through this station. Constant contact on five-meters was maintained between W8YX and the local power company with their amateur station W8FAY. Through that contact only was the power company able to get word to their sources of emergency power supply at Indianapolis and Dayton that all available current should be sent to Cincinnati. This message was relayed through W9AAI at Fort Wayne, Indiana. When complete failure of electric power in Cincinnati seemed imminent, and the steam driven generator at the University of Cincinnati was rendered useless by the failure of the water supply, the international harvester company loaned a 2½-ton tractor to drive the steam generator. Spare tubes for W8YX were loaned by the local broadcast stations. The work at W8YX was a credit to amateur radio. In one incident the deputy sheriff of Carrollton, Kentucky, placed a message with W9NKD at 3:22 PM and the message which read "HAVE AMBULANCE TO MEET BABY AT MADISON BEING BROUGHT BY SPEEDBOAT FROM CARROLLTON" and further "BE THERE IN 30-MINUTES AND BE READY FOR APPENDICITIS OPERATION." At 3:32 PM W8YX had this message and at 3:36 PM it was sent to LC9X at Indianapolis who had a direct wire to most points in Indiana including Madison. At 3:38 PM, 16-minutes after the message was written, the ambulance was on its way to meet the speedboat and the hospital at Madison was preparing for an emergency operation.

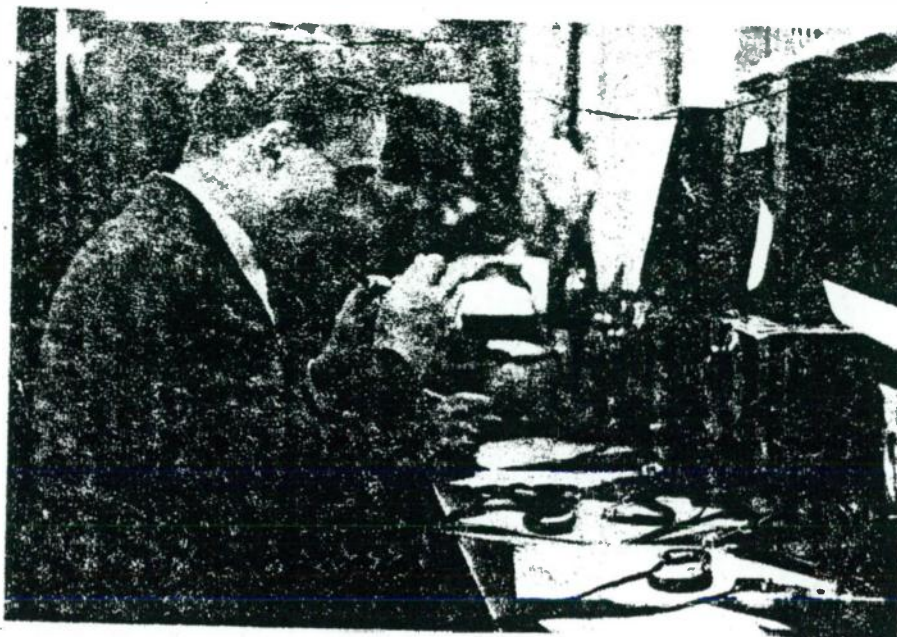
The chief operator at W8YX was W8LNK who was assisted by Dick Walker, W8BRQ, and by W8ODL, W8JFZ, W8CCM, W8PQE, and W8JQZ. W8JQZ was Lan Wong a Chinese student in electrical engineering at the University. In an article written by Dick Walker, of WLW, who was the operator at W8YX, gave the following account:

"As the rains continued during the middle of January of 1937 interspersed with wet snows, it became evident that a major flooding condition on the Ohio River was approaching. W8YX was placed on the air during 'available operators time' to assist in the emergency. When classes were suspended at UC, and the operating staff could be expanded, the transmitter was placed on a 24-hour operating schedule under the supervision of William Carl Osterbrock, W8CAU, of the electrical engineering department. The day was divided into two shifts with the main transmitter control position being manned by Carl Grinstead, W8LNK, from 6 PM to 6 AM, and by Dick Walker, W8BRQ, from 6 AM to 6 PM. The members of the UC radio club manned the four main 'spotting and search' receivers which were continuously scanning the 75-meter phone and the 40-meter CW band for calls for W8YX.

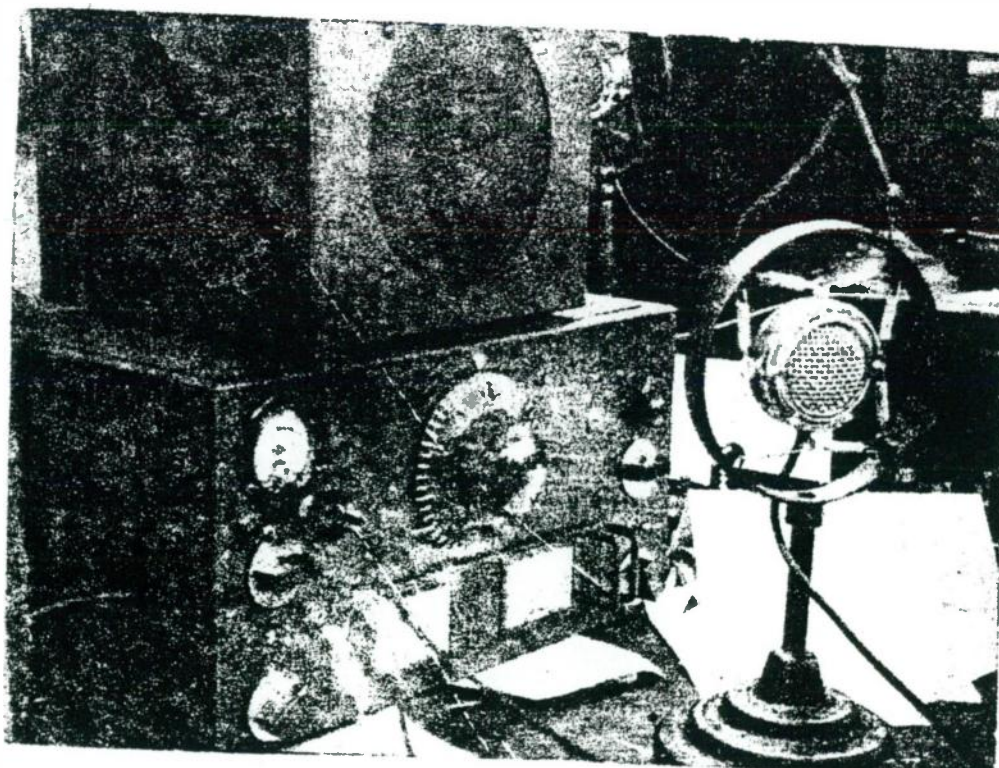
After fighting the usual interference problem for several days on 1997 KHz a telephone call to the FCC in Washington gave immediate permission to operate on a clear channel of 4002 KHz. From this time on, W8YX had practically a clear channel and there were very seldom any repeats necessary on our transmissions. The scanning receivers would spot the frequency of the next scheduled station and any new station calling in, and pass this information on to the main control operator who would then take over the reception on the main receiver. Thus allowing the search receivers to find other traffic for us.

Two additional telephones were placed in the operating room and other students, who were not radio amateurs, assisted in the many phone calls that

UNIVERSITY OF CINCINNATI AMATEUR RADIO W8YX



Professor William C. Osterbrook-professor of Electrical Engineering relaxing at operating controls of W8YX



The old standby receiver at W8YX-National HRO many other used also. Note double-button carbon microphone

were necessary for local messages and delivery. One of the numerous messages went like this: "TO U.S. PUBLIC HEALTH SERVICE-WASHINGTON-D.C.-SEND ENOUGH TYPHOID VACCINE FOR 8,000-PEOPLE TO MAYSVILLE KENTUCKY AT ONCE," and another: "AIRPLANE WITH SERUM READY TO LEAVE PHILADELPHIA FOR LOUISVILLE-ADVISE OVER BROADCASTING STATION WHAS WHERE PLANE SHOULD LAND." During the operation the University heating system had to shut down due to lack of clean water. A local hardware store donated two small oil heaters to help keep the area warm. Normally the generating plant at the physics laboratory at UC used a steam engine to drive an electrical generator. But during this emergency the power system at W8YX was set up using a tractor driving some of the electrical lab generators. The equipment was set up in considerable less time and with greater interest than the routine classroom labs. Although the speed and frequency control would have been a major problem because it had to be done manually. However, due to emergency feeders from Dayton and Indianapolis and the fact that the University was on the higher priority list and the same feed lines as to the hospitals in the city, only momentary interruption due to switching occurred. Most of the city of Cincinnati had instruction to limit their power usage to ONE LIGHT BULB PER HOME AND ONE RADIO WAS ALL THAT WAS ALLOWED. Some parts of the city had no electricity for many days. All water in the city was either shut off or condemned and had to be boiled before use. Both transmitters operated without failure throughout this emergency and the receivers only had minor losses. Most receivers had problems because of testing the generator when the speed increased and the voltage soared and blew out several small capacitors. On the day following "Black Sunday" on January 24th, there was a sudden snow storm which generated snow-static and caused the series-tuned capacitors to "flash" over and detuned the antenna system. During normal times this would mean shutting down the rig, but, the storm soon changed to more rain and the 1000-watt transmitter was not affected."

"The phone rig ran on a motor-generator set, and the many starts and stops necessary were very hard on the motor starters. No failures occurred, however, There was no accurate count of the thousand of messages handled. Standard procedures fell by the wayside in the rush to get them through with a minimum of delay. Some messages were repeated verbally from a long distance telephone call directly to the control operator in contact with the relay station. The account written by George B. Hart was real and covered the great cooperation we had with the many HAMS who faithfully kept their schedules with W8YX. Calls of those participating in this operation at the University cannot be found in recent callbooks. Remembering names over the years brings to mind those of Professor Osterbrock, Professor Bob Bell, Carl Grinstead, John Quitter, Dave Birrel, Ben Turpin, and H. Wolfe. There were many others, both amateur and commercial and prospective amateurs, and those just interested in helping out and all remain unknown at this time. The peak of this operation came at the height of the flood at 79.99-feet. The river gauge never did reach 80-feet. The 24-hour a day operation at W8YX extended over a two-week period. As the communication channels were re-established, and the crest moved farther down stream. The 75-meter operation returned to within-band and most of the communication shifted to the 7 Mhz band continuing on a reduced basis until the emergency ended. Due to full operation schedules some of the operators did not see the city nor the river, being confined to their operating positions. Location of the W8YX equipment was on the roof level of Swift Hall where the radio room was located in a penthouse built for this purpose. There were two 100-foot steel towers mounted on the top of the building. The 75-meter antenna was a one-half wave fed off-center, and strung between the tops of these towers. The 40-meter antenna was also one-half wave and fed at the end with one end tied to one of the towers and the other to a 20-foot pipe near the radio room. The transmitters were both home-made units constructed by UC club members. The CW rig was about one year old and ran 1000-watts input on 7167 KHz. The power supply was three-phase full wave with 872 rectifiers. The phone transmitter was somewhat older and ran 700-watts. This job was powered by a motor generator putting out 2000 volts D.C. Most of the operation was on 4002 KHz. The main receiver was a National HRO-the search and scan receivers were two type NC-101X and a National FBX and also an REL-169. Several home built receivers and broadcast receivers to monitor broadcasts were used and loaned by members of the club for the duration of this emergency. These facts are all I recall after 32-years."

One of the stations who helped W8YX was W9NMQ, Paul Beidenharn of Covington, Kentucky. He operated from his radio shop at 1822 Madison Avenue in Covington because his home was without gas, electric, and water. He relayed a message to a truck convoy enroute to Louisville loaded with food and medicine which was marooned, and helped get it back on a detour road. The Mayor of Louisville latter sent Paul a Thank You note. Shortly after that Paul received a call to bring some receivers which were needed at Speers Hospital in Dayton, Kentucky. Paul made it over the sixth street fill, where water had already covered it, but on the way back his motor stalled and he had to crawl out on the roof of the car and wait until Newport firemen threw him a rope. He tied this to the radiator cap of the car and they pulled him and the car to safety.

Also from Covington we have further information from Radio Amateur, W9DYS, Howard House. Howard lived on sixth street between Greenup and Scott streets. Howard says "The water was in our basement and covered the water meter, gas meter, and the electric meter. Although the electric meter was submerged it somehow did not completely short out the electric. It was cut down though to the point where light bulbs only lit at half brilliancy. Our water was not fit to drink, we boiled all of our drinking water first. I helped dandbag the Covington side of the Suspension Bridge to keep it open for traffic. Lang's restaurant, which was the most popular in town, had 42-inches of water in the cafeteria. There was a large lake formed in the area between fifth and Scott streets and Seventh and Scott."

The amateur station, W8MGD, at the National Guard Armory used the radio to report to headquarters at Fort Hayes, Columbus, Ohio. They also had their job cutout to prevent looting in the areas that were flooded near store fronts. People would use small boats to paddle up close to the windows or the door and load their boat with goods. One of the radio amateurs in the National Guard was William Howard Goodrich, W8LNL. He stood guard at Knowltons Corner, where five-feet of water covered the streets, and used a home-built five-meter portable unit to report back to the Armory with information or questions.

A further look at the operations at the Ohio National Guard divulges this information: "Looking in on the W8MGD/DB set-up at the Cincinnati Headquarters Company, 1st battalion, 147th infantry, Ohio National Guard under 1st Lt. James A. Beale, we find that the Guard was ordered to supply communication facilities for the Cincinnati flood area. The official call assigned was "DB", but corporal George (Mike) Dively's call was used for most communication purposes. The transmitter operated on 3527 KHz, and another was used in the five-meter band. From thursday at 9 PM until thursday at 8 AM of the following week, corporals Ray Murphy and Mike Dively along with George Hart as chief operator worked continuously, 24-hours a day, under the worst possible conditions. The aggregate sleep of the three men was 57 hours, or less than 20 hours sleep-per-man during those seven days! A mobile five-meter operated by private Allan Dolmes, W8IGN, and private Howard Goodrich, W8LNL, supplied much needed portable communications. These portables enable the runners to maintain constant communications with the headquarters station, and speeded up the dissemination of information and message traffic. The excellent work of this unit had prompted the State of Ohio to plan erection of a 500-watt station, with the most modern of receiving equipment, for future emergencies.

Until the water around the armory rose so high as to break down the insulation of the telephone lines, W8MGD had a private telephone line right into the studios of WCPO. This broadcast station, WCPO, could cooperate in the handling of the emergency "urgent" traffic that they confined themselves to. The commandant of the headquarters of the ONG at 33 West Ninth Street, Cincinnati, in a letter dated February 5, 1937; addressed to Mr. George B. Hart-6738 Balkinton Place, Silverton, Ohio:

OHIO NATIONAL GUARD
Headquarters-33 West Ninth
Cincinnati, Ohio

Office of the
Commandant-ONG
Brigadier General
Mr. Connely

February 5, 1937

Dear Mr. Hart:

Now that the flood crisis is safely passed, and the National Guard is withdrawing from this area, I desire to express through you my appreciation of the splendid service rendered by the radio amateurs who are members of our National Guard.

For a period of many hours the most satisfactory communication, which was maintained along the Ohio River, was that which was due to the radio amateurs in the various National Guard Units.

Yours Very Truly
Mr. Connely
Brigadier General
Ohio National Guard

Another radio amateur who did much work during this flood was Harry Gantz. Harry reports "We had a time getting all the stations on the same frequency. It was Rolo Tedford, WBAW, who was already in the Quartz crystal manufacturing business, who came to our rescue. Somehow he managed to grind all our crystals to be on the same frequency, even with the electric turned off. How in the world he ever got them all the same, I'll never know, of course we all worked helping the red cross, Army Corps of Engineers, and whoever might need our help, with no pay." Then Harry made an observation, 33 years later, as he talked to me on the telephone. "The most important lesson I got out of the terrible flood was the startling fact that everyone was anxious to help everybody else. We never thought of whether this person, or that one, was of the same religion, same color, or creed, we just pitched in and helped. Seems that in an emergency such as this we are truly all brothers under the skin, but as soon as it is over we get back to squabbling again." I can add to what Harry just said and say, "How true, How true that is."

When "Black Sunday" put in its appearance that January 24th of 1937, the ordained and comfortable ways of life changed for everyone. Radio began in earnest the job of expediting the evacuation of 780,000 persons from the flooded areas of the Ohio, Mississippi River valleys and radio had been on the job since Wednesday. On Thursday the members of the National Guard were mobilized for the emergency and black Sunday found them still at their post.

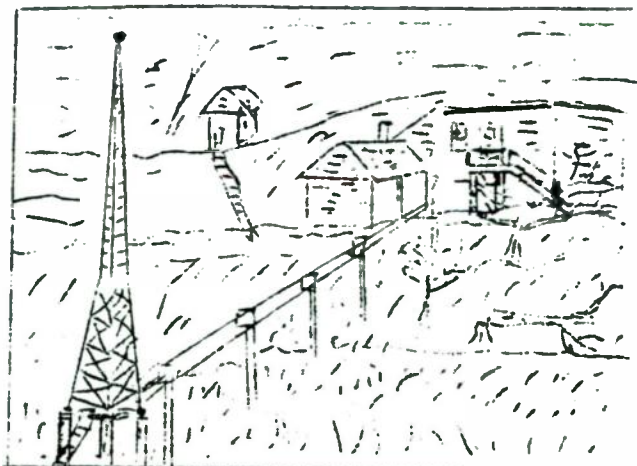
Not expecting the river to reach them, old time residents who had seen many a minor flood refused to leave homes when first warned. As the Ohio, abetted by the swollen Scioto River, crept higher and higher, inch by inch, people began to shout for help. Their plight was made even more desperate by lack of Food and heat. In nearby New Boston, Ohio, Mayor D.H. Bowling appealed for help. But communication was broken, the lines were out, and only amateur radio stations like W8DQM, W8KYQ, and W8MRU, remained in operation. Of these W8MRU worked night and day maintaining official communication in the National Guard nets at Columbus and Cincinnati. W8KYQ assisted in the handling of personal messages using 75-meter phone, and W8DQM heroically stuck by his mike from two different locations as the rising waters forced him to higher ground.

W8DQM was cited by the National Guard for meritorious service during the flood. In like manner NEG, the Cincinnati Naval Radio Station, and W8MGD of the Ohio Guard were also. At one time, W8DQM, would move his location only after the water had reached his station. Several members of the Army Engineers staff were assigned to help him get established in a new location on a hill overlooking the town. W8MRU operated using code on 3525 KHz throughout this emergency and did a fine job for the National Guard and Amateur Radio.

In a special bulletin issued by the President of the Union Central Life Insurance Company, Mr. Cox, they had this to say: "The heavy deluge of rain that swept the Ohio Valley that day of January 24th was the final gesture of Mother Nature speaking from the skies. There had been two weeks of steady downpour of rain and snow and this last rain carried with it a timely warning, an unprecedented flood was yet to come and with it an era of suffering, famine, pestilence, and death. That is, unless the citizens of flood endangered areas banded together and struck back with all the cooperation and sacrifice humanely possible. Realizing that the strategic location of the Union Central Building afforded an opportunity for his Company to render a humane service to his community, President Cox opened the doors of the Union Central as the center of flood relief activity. A Sunday evening conference in the annex building marked the beginning of an unrelenting flood fight. The next morning the Union Central was the headquarters of the Red Cross. All available space was taken over and seemingly countless telephones were installed on the first floor. Food, Clothing, shelter, housing, transportation, and medical units, sprang into being as if created by the wave of a magic-wand. Endless lines of trucks discharged food and clothing at its doors. Streams of Red Cross workers, boatmen, and refugees, surged through the building's halls. For days and nights this went on and there was little sleep and no end of personal sacrifices, many a heartache, and a little laugh now and then. Cincinnati rose to meet the emergency situation and undertook the job as it should have been taken, calm, cool, undismayed, and with its vision focused on a happier horizon. By Monday, January 25th, the Ohio had swelled to 77.7 feet and Tuesday the river reached its crest of 79.99 feet. Never before in the history of Cincinnati and Northern Kentucky had flood waters from the Ohio clawed with chilling icy fingers, in so destructive a grasp, at the very vitals of this community. Never before had impending disaster so heroically been hurled back. Of the entire area of Cincinnati, housing nearly a half-a-million people, only one-tenth of that area was actually touched by flood waters and that for the most part was comprised of warehouse buildings. In Northern Kentucky, across the Ohio, two-thirds of the people of Dayton were forced to abandon their homes. Bellvue, Newport, and Covington, suffered untold hardships. Out of the maelstrom Cincinnati and Northern Kentucky emerged standing on their feet, weary but victorious."

From the pages of "They Built A City" published by the Cincinnati Post we end this flood chapter with their words. "Ten months after this flood of 1937 the Cincinnati people voted in an election a five-million dollar bond issue, the proceeds of which are to be used for setting up a floodwall or otherwise protecting the city's low-lying sections against future river raids. Proposals are now being studied (1938) by engineers, and additional building funds will probably be appropriated by the Federal Government after a flood protection plan is approved by the United States Army Engineers. So in the future Cincinnati may put up a wall between themselves and the Ohio River. This waterway was friendly when it took their ancestors on its back through nature's wall in the Alleghenies and bore all their goods, then suffered their taking the trees from its banks and spewing it with refuse from their sewers and industrial plants, But there is a limit to friendliness, and the river periodically exacts its toll."

WZIP-COVINGTON, KENTUCKY-1050 KHz
OCTOBER 5, 1947



1947- WZIP TRANSMITTER

A historian would say "Yes, there was a radio station in Covington, and it began its operation on October 5, 1947." With studios on the fourth floor of a building located at the southwest corner of sixth and Madison avenues in Covington. The transmitter was one made by RCA with a power output of 250-watts. The transmitter building was located on the property of the Exterkamp Construction Company at the end of West 8th street near Philadelphia street. The building itself was frame and two-stories high and was formerly used as a blacksmith shop and still had horse stalls in the downstairs portion. It had

been covered with modern aluminum siding and inside were facilities for the personnel such as running water etc. The small ten by twenty foot room on the second floor had a wooden floor of rather wide wood similar to that used as siding on outside walls. A wooden stairs led to the transmitter room, built on the outside wall with a small landing at the top. A string of telephone poles, about 30-feet apart, carried the radio signal down to the tower which was sitting in a hollow. A metal enclosed tuning unit was built on the wooden platform at the base of the tower. This was reached by an ordinary ladder from the ground level. There was a device to automatically turn on the tower lights at nighttime and a small motor that caused the top light to blink on and off at regular intervals. The radio programs were fed over a telephone line from the studio and fed into the transmitter to be broadcast. An unusual feature of the tower was the fact that it sat in a hollow about thirty feet lower than the surrounding terrain. It could be pictured as a giant bowl with three streets bounding it, and thirty feet higher. This whole bowl was sitting within a larger bowl comprised of the background hills of Devou Park. A person could travel to the top at Devou Park and look down upon this radio tower. But this fact did not hamper the signal from WZIP as the lowland was marshy and this meant an excellent ground system. It was an ideal location for a radio tower for this reason and geographically it couldn't have been better located to cover the greater Cincinnati area. It was only one-mile from either downtown Covington or Cincinnati across the river.

These simply are physical facts, and do not reflect the true character of this radio station. From an engineering point of view it had one of the best locations of any of the Cincinnati radio stations. It had an outstanding signal in all directions. But having a good signal doesn't mean much if the program material isn't interesting to the audience. Many radio stations promise to do a great number of things in the public interest, but in practice they fail to live up to their promise. The gap between promise and performance is very wide on too many stations, but in the case of WZIP it was narrowed down to a pin-point sharpness.

Each radio station reflects certain traits of character much like each individual does. These traits are unique to each radio station and to no other. WZIP could be called an extrovert type because its interests were directed outward beyond its own studios. After all, this is where the people are, and like they say "This is where the action is." WZIP was always on the move, operating outside its studios far more often than in them. With "Man On The Street" programs, interviews, action from City Hall, live country & Western shows from the Covington Library, Boone County Airport programs, and many remote broadcasts from spots around town. WZIP was truly a part of the society which it represented. WZIP went on the air with a promise, and that was to serve the people in its listening sphere.

As a matter of passing interest WZIP studios and offices were located on the fifth floor of a building at Sixth and Madison In Covington which were the studios of WCKY when they began from Covington in 1929.

Of course it takes a great number of people, highly trained in many fields, to make a radio station a success. There are countless details to be attended to: telephone call to government agencies, stationery to be ordered, program logs to be printed, countless technical items which must be taken care of, script to be written for programs, music to be selected from the music library, microphones and stands; record turntables, recorders, studio facilities, monitor equipment, and personel to announce and do all the things so necessary to keep a station on the air. Radio stations run not by days, or hours, but by seconds! This second-by-second, or daily-ness, is an exacting job and requires constant attention. All this preparation can be lost to the winds if there isn't some guiding, or under-lying force, to direct all programs to project a given image. This "Guiding Light" is best personified by Mrs. Carmen Eilerman, and her work with all the various groups in WZIP's sphere of influence. Her program "Carmen's Corner" would be difficult to describe in a whole book in itself, much less in these few paragraphs. It was a variety show that really wasn't a variety show. It was a variety show in the sense that it was composed of a variety of different people from different walks of life, but not a variety show of the type generally given over the airwaves where music dominates, and this interspersed with talk and humor. It had music, to be sure, but talk came first. Not just idle talk, but talk that left a person just a little wiser for having listened in. That was the secret of the show. It would be easier to write of this program if we both heard it, you and I, at the same time. It is impossible to write twenty years later about this show and expect any reasonable communication between myself and you the reader. That the program reached thousands of persons is attested to by a file cabinet full of press clippings tells part of the story. I cannot under any conditions condense those clippings down to any reasonable reading. It would require that they all be printed, and that is impossible at this time. I can only establish the fact that a rapport existed between the radio station and the listening audience.

Long before any of these shows began, preparations had to be made to get the station on the air. Let's take a look at this phase first. Of course a radio station doesn't make the scene overnight. It takes quite a lot of planning, and those who have done it will tell you it almost looks impossible at times. Obstacles? Frustration? There aren't enough words to describe the situation. But, to start at the beginning we find a group called "The Northern Kentucky Airways Corporation" formed in March of 1946 with Arthur Eilerman as President, Charles Topmiller as chief engineer, and Gregory Hughes, Covington Attorney, as secretary. Arthur Eilerman was a Covington Businessman and Charles Topmiller was chief engineer of WCKY and who had just recently returned from radio service with the military in the European and North African theatres. This group asked the FCC on March 2, 1946, for authority to operate a new radio station in Covington on a frequency of 1050 KHz using 250-watts of power, and to operate during daylight hours. Of passing interest would be the definition of a daytime radio station. The FCC says that this type of station must not sign-on before sunrise, and must sign-off at sunset. Of course these times vary from day-to-day.. Each day the sunrise and sunset times change, but the FCC averages the times for a given month and these become the operating time of a daylight station. For instance, during the month of January in the Cincinnati area, the sunrises at 8 AM and sets at 5:45 PM on the average, and these times are posted on the station license as the operating hours. It may be of further interest to note that in any part of the United States the yearly average for daylight is 12 hours per day and of course 12 hours of nighttime. It is interesting to note that only daylight can be defined in the dictionary and for nighttime it says this is the absence of daylight!

The City of Covington had its own radio station from the year 1929 to 1937 when WCKY had its studios in the same building that were to be occupied by WZIP. WCKY moved their studios to Cincinnati and left Covington without a real voice of its own.

Almost simultaneously with the announcement of the application of the Northern Kentucky Airways for a license came news of another group calling themselves "The Northern Kentucky Broadcasting Company" who also sought a license to operate in Covington. Listed as directors of NKBC were William and Fred Macklin of Coppin's Department store on the corner of 7th & Madison; Tom E. Hill, Bernard Eilerman, Norbert Dorsel of the flour company in Newport, and William Holland of the Holland advertising agency of Cincinnati.

With Bernard Eilerman as head of one group, and Arthur Eilerman as head of another, it meant that brother was apposing brother in their applications for a radio license. Mr. Robert Higgy, radio engineer from WOSU in Columbus, Ohio, said "Both would render service as like as peas in a pod."

Hearing on the applications of the two groups were heard by the FCC examiner in the Federal Building in Covington on September 23, 1946. The FCC examiner was Mr. James Walter of Washington who listened to all the testimony given by both groups and took this information back to Washington for evaluation and a decision. Witnesses for the NKA group were; Al Paul Thiel, former announcer for WCPO, who was slated to be the program director for the new station if Airways won the decision, Mr. Thiel said "WE plan a large number of public interest programs for our station, and these would include local, national, and international news." He also introduced letters from 22 Covington residents endorsing the NKA application. Other witnesses were Fred A. Palmer a radio consultant on management and operation. Charles H. Topmiller a native of Bowling Green, Kentucky, who was chief engineer of WCKY. A Mr. William Anderson executive director of the Covington Chamber of Commerce, said he was not representing either side, but "Covington is badly in need of a radio station and that he believed either of the two companies could operate a station satisfactorily."

To complicate matters, a third party organization had also applied for a license which was represented by a Mr. James B. Milliken, Newport Attorney. That group was given a hearing by the FCC later on.

During the two-day hearing it became evident that one of the two groups would get the new license. No other nearby radio station opposed, nor sought to object to the new station on grounds of interference. The counsel for FCC, Edward T. Kenahan, only offered clarifying questions. Records of the hearing were left open for 20-days, however, to permit filing of exhibits showing that the station will offer no interference to WIBC at Indianapolis. At the conclusion of the hearing the examiner for FCC said "Each group would receive notification within a month to attend a hearing in Washington for presentation of technical details. At this time the license was awarded to Northern Kentucky Airways Corporation.

James E. Walter, FCC examiner, is still chuckling over the Silver Beaver incident of the radio hearing he held in Covington in September. The newspaper told the story this way: "Arthur Eilerman and Hughes, testifying for Airways Corporation, told of their civic activities. Both, it seems, hold the Silver Beaver award for outstanding service to the Boy Scouts. Then Mr. Hill, for his radio corporation, underwent cross-examination. "Are you, Mr. Hill, a Silver Beaver?" he was asked. "No," he replied. Then, as an afterthought, "but my father was." "Oh," said the attorney, "so you are just the son of a silver Beaver."

When the new station license was assured a small pamphlet was distributed around Covington. On the front cover it said "Announcing (by permission of the

FCC) a new venture, 'Northern Kentucky's New Voice,' featuring the new baby star, RADIO STATION W??? (not announced). The first show will be in the center of your radio dial, 1050, from Covington, sometime in August (we hope) with a lung-power of 250-watts. This is Northern Kentucky Production and sponsored by the Northern Kentucky Airwaves Corporation.

NORTHERN KENTUCKY'S NEW VOICE

Patient Mother.....Arthur Eilerman, President
Distracted Father.....Charles H. Topmiller
station manager
Attentive stork.....Gregory Hughes
attorney & secretary
Solicitous Nurse.....Al Paul Thiel
program director
Doting relatives.....Lou Arnzen, Zelma Byerly,
Shirley Ferguson, Julianne
Kuschell, Mrs. A.E. Runner,
O.B. Savely, Dan Schwartz.

MUSICAL INTERLUDE

"Hallelujah Chorus".....Family assemble
"Nobody Knows The Trouble I've Seen".....by Gregory Hughes
"I've Waited Honey, Waited Long For You".....by Topmiller
"A Hunting We Will Go".....Eilerman
"You Tell Me Your Dream, I'll tell You Mine".....program department
"My Old Kentucky Home".....entire cast

In a series of news-letters began on June 30, 1947, Carmen Eilerman tells of the woes of finally getting a new radio station on the air. On June 30 she said "This is a first of a series of letters which will introduce you to our officers, the members of our staff, and our program in general and in particular. We hope you understand our aims and hopes. We conferred with, and obtained opinions from a divergent group in formulating our program policy. This group consisted of lawyers, ministers, priests, businessmen, doctors, public officials, housewives, merchants, educators, and youth and club workers, whom we felt represented the economic and cultural interests of Northern Kentucky. As a result of these conferences our program embraces musical and participation as well as religious, civic, educational, dramatic, and agriculture programs tailored to meet the desires and needs of a Northern Kentucky audience."

In news-letter No. 2 issued July 3, 1947, it was stated in the form of an introduction some facts on the owners: ARTHUR EILERMAN, President and Sales Manager, who is 40-years old and resides at 2270 Dixie Highway, in South Fort Mitchell; is married and the father of one son; is a graduate of the University of Cincinnati and until recently was Secretary-Treasurer of H. Eilerman & Son, Inc. His civic activities include membership in Covington Kiwanis Club, Covington Chamber of Commerce, Covington Lodge of Elks and Executive Board of Northern Kentucky Council, BSA. During World War-two he served 7 months in the Army and two years with the American Red Cross as field director."

CHARLES H. TOPMILLER, Vice President and general manager of WZIP, is 38 years old and resides at 1061 Upper Jackson Road, Park Hills; is married and the father of one daughter. He attended Western Kentucky Teachers College and the University of Cincinnati. He has been chief engineer of station WCKY since 1933. During world war ll he served as chief engineer, radio section, psychological warfare Branch in Africa, Italy, the Phillipines, and Tokyo.

GREGORY W. HUGHES, Secretary, attorney, and director of public service programs, is married and the father of two sons; a graduate of the Virginia Military Institute, Georgetown University School of Law. He served in World War I and as a congressional Secretary for five years before undertaking the practice of law in Covington 24-years ago. His civic activities include the Covington Y.M.C.A. and the Covington Red Cross Chapter, Covington Optimist Club, Covington Chamber of Commerce and Northern Kentucky Council, BSA.

In news letter No. 3: "News-letter No. 2 covered the programs and the policies of station WZIP in general. In this and the succeeding letters we would like to present our program setup in a more specific manner and to give you a clearer picture of some of our public service programs. Under the title of "Religion" programs we will set aside a portion of the time we have set aside for our different sects. Sunday through Friday our morning religious program will be conducted alternately by Catholic Priests and Protestant Ministers. The Saturday morning program will be conducted by a Rabbi. Vesper service on Sunday will be presented by a Negro Minister. These programs will be heard from 8:15 to 8:30 Monday through Saturday and 8:00 to 8:15 on Sunday morning. The Vesper service will be heard at 4:00 PM Sunday."

The letter further stated: "The community interest programs will, by their very nature, consume a large portion of our time. The variety of subject coming under this classification make it impossible to cover them all without becoming boring to our readers so we will mention just a few.

The youth subjects include "Youth Speaks" and "Youth Parade;" the first being a forum type presentation and the second will give a voice to various youth organizations to explain their activities. On the matter of other types of programs the "Northern Kentucky Forum" will feature presentation of any moot question by members of civic organizations. "Know Your Community"; "Historic Kentucky," and "Your Government" are three programs which we anticipate will prove of interest to a major portion of our listeners. "These are the Facts" will be a program intended principally for the veteran. It will be a question and answer type program on Government Bureaus such as the Veterans Administration, United States Employment Service and others. These are a few of our proposed programs to sell Northern Kentucky. Remember Confucius say: "If Northern Kentuckians don't sell Northern Kentucky-No Sale!"

Then news-letter No. 4 continued: "We hope that the agriculture portion of our programs will prove to be of real help to our farm friends, and of interest to farm and city dwellers alike. The "Farm Hour" will be heard each morning except Sunday. Each week a transcription will be made at one of the local farms and will be played back on Friday afternoons as "Here On The Farm." The farm agents of six counties will participate. Daily market and weather reports will be given. A portion of the "Women's Hour" will be devoted each day to items of interest to farm wives."

The letter went on "Insofar as possible local talent will be used on all dramatic programs. The "Northern Kentucky Playhouse" will be a Sunday feature. It will present various high school as well as other dramatic groups, which will have an opportunity to present original plays and to furnish their own announcers, sound effects, etc. Our musical setup encompasses all types of music scheduled for those times we felt the most appreciative audience would be listening. The favorites of the school elements have been worked in for presentation during after-school hours; semi-classical and classical music has been programmed during the dinner hour. "Twilight Echoes" gives promise of being one of our most popular programs and will be heard as the last feature of the day.

News-letter No. 5 went on to say: "A woman's Hour" will feature music, household hints, fashion topics, recipes, and shopping news. "Bulletin Board" will give up-to-the-minute news of all club, church, and fraternal events of interests. "Lady Of Today" will feature an interview with a woman in the news

today, "Plane Talk" will originate from the Boone-County Airport. "Passing Opinions" with Steve Crane is a man-on-the-street program, and it will originate somewhere in Northern Kentucky each day.

The program director will be Al Paul Thiel. In 1947 these facts were presented: "Al Paul Thiel is 29-years old and resides at 2412 Herman Avenue, Covington, Ky." In that same year Gustav J. Adams was to be the salesman. "He is 25-years old and resides at 811 Burdsall Avenue in South Fort Mitchell" the letter said. In letter No. 7 it said "Josephine Bondy was to be the traffic manager. She is 36-years old and resides at 822 Arlington Road in Park Hills."

Other personalities in the beginning of WZIP were Audrey Dapper as secretary and the letter said "...she is 18-years old and resides on Bramble Avenue in Highland Heights. Stanton Falls Matlock is to be the News Director. He is 24-years old and resides at 6231 Cortelyou Avenue in Cincinnati. Lloyd Baldwin is 31-years old and lives in Independence, Kentucky."

In letter No. 8 "We have received all clearances necessary to erect our tower in Willow Run, just north of Ninth Street. The tower will be about 235-feet high and will not be affected by any flood up to 80-feet. Since the spot is so low and damp, the engineer's estimate we will have an exceptionally strong signal as these are ideal conditions for an AM station. The erection of the tower will probably be completed within the next two or three weeks. The reconditioning of our studios and offices has been delayed but is now coming along and we hope to be in them within the next two or three weeks. Since we are on the fourth floor we are sure the installation of an elevator during the fall months will be of interest."

Many friends have tried to reach us at the phone listed at the top of this page, but the phone will not be installed until our offices are set up. In the meantime we are taking all calls at JUniper 4553. In news-letter No. 9 told the prospective buyer of "time" exactly what the differences are when you deal directly with a station salesman or if you go through an advertising agency.

On September 2, 1947, the news was that Mr. Charles Topmiller had resigned in order to become station manager of WCKY. Mr. Arthur Eilerman will replace him as General Manager of WZIP. Hugo Bondy will be the chief engineer. Mr. Bondy is 38-years old and resides at 822 Arlington Road, Park Hills; is married, born in New York City, he early moved to Ridgewood, New Jersey, which he considers his home town. He attended school at Montclair Academy and the Pace Institute and his further technical education was taken at RCA Institute, Capitol Radio Engineering Inst., and Columbia University. He spent two years at sea as an RCA Marine Operator prior to becoming assistant chief engineer at WNEW in New York in 1937. In 1942 he joined OWI as a radio engineer, Senior grade, and served overseas in the Belgian Congo, Cairo, Egypt, and in North Africa and in Italy. For a time he was chief engineer at the Torrenova transmitter site in Rome. After the war he joined the staff of Westinghouse Electric Company as field engineer. In 1947 he moved to Miami, Florida, and became chief engineer of WGBS. For the past two months he has been transmitter supervisor at WCKY. Under Mr. Bondy's direction, the installation of equipment has been speeded up and we hope that soon we will be able to announce our opening date.

Other news-letters continued with introductions of personel. JAMES A. SMITH, JR., is a WZIP staff announcer, is 22-years old and resides at 603 Wallace Avenue in Covington. He is unmarried and a graduate of Homes High School. He attended Miami University, Oxford, Ohio, majoring in drama and the Cincinnati College of Music studying to be a concert pianist; served in Public relations department of U.S. Coast Guard, doing radio and journalistic work and music programs; has written several compositions for piano, one for piano and orchestra; was one of the original founders of the Ft. Myers Little Theatre and co-founder of the Gateway Theatre; is currently working as announcer for WCKY. James B. Macke, staff announcer, attended Schuster-Martin school of the Drama in Cincinnati specializing in radio work; entered the army in November, 1942, serving 3½ years mostly at Moore General Hospital near Ashville, N.C., where he originated the first Army Show at the

hospital-acting as producer, director, script writer and MC; put on a weekly half-hour variety show over station WWNC of Ashville featuring the patients and personnel at the hospital; also had two daily newscasts and two musically recorded shows over the Hospital broadcasting system.

JAMES SARAKITSANNIS, staff announcer, is 20 years old and resides at 79 Bivouac Place, Ft. Thomas. He is single and attended Highland High School; served as a seaman first class in the Coast Guard for 11 months, his tour of duty was in the Pacific and took him to Alaska, China, and way points; upon discharge from the Coast Guard entered College of Music Radio School and is now in his third year; until his graduation he will serve as a part-time announcer with WZIP; he will be known on the air as Nick Sanis. When WZIP goes on the air shortly, you will hear these men's voices at 1050 on your present radio.

In letter No. 13 it was stated "Eight persons of diverse interest and activities have been selected as members of our program advisory committee which will function under the direction of Mr. Gregory Hughes. They will study and report on the program needs of the communities of Northern Kentucky and will advise the management of WZIP on the need and effectiveness of our public service.

Then one of life's little pitfalls occurred and letter No. 14 went on to say "...in recent years much has been written and said about the high price of corn. Many unpleasant things which we have had to accept have, somehow or other, been blamed on the high price of corn was merely a scapegoat in many instances. This paragraph is to admit our error, the high price of corn is no joke! We are in a position to make this positive statement since someone had planted corn in Willow Run right smack where it had to be plowed up before our tower could be completed. After paying \$50.00 for a whatever-amount-you-can-grow-in-a-few-rows-in-Willow-Run we can better understand why the cattle we have been buying in the last few years has chewed like a special brand of old elephant steak or the discard from a synthetic rubber laboratory."

And then "HALLELUJAH, our baby speaks!!!!!! We've been much perturbed these last several months over the fact that our che-ild refused to utter a sound. We have, at times, sunk to the depths of despair where we feared we might have borned a mute!

Dr. Hugo Bondy, a specialist in our particular kind of baby and its ailments-along with several of his associates, has assured us that if we would be patient and foot the bill for the necessary curatives he was positive he could cure the infant. The results are amazing!

"THIS IS STATION WZIP-THE VOICE OF NORTHERN KENTUCKY"

We're so happy that we want our friends to share our joy with us. At 8:00AM on Sunday, October 5th, 1947, Dr. Bondy will coax our child to speak and we hope that that you will have your radio dial tuned to 1050-the middle of your dial-to hear what our child has to say.

From 2:00 to 3:00 PM-and we hope you will still be listening-we have arranged for a dedicatory service in lieu of a christening since our baby is non-sectarian. We expect that Governor Willis will be on hand to do something appropriate (like breaking a bottle of champagne over the baby's head or prow or something) along with other notables. You are cordially invited to drop in at 6th and Madison, 4th floor, sometime between 3:00 and 5:00 to see our baby in action. We'll be expecting you."

I almost forgot to tell you what Carmen Eilerman wrote shortly before they went on the air. "Our promise to you when we started these letters was to keep you informed as to the progress we were making-we made you no promise to withhold the gory details-so here is our latest report."

"The first items necessary were offices, studios and a radio tower. Since our President is a little full around the middle we chose a building which had space for rent on the fourth floor-and no elevator. Since our secretary is just the opposite (and that's a charitable statement) we immediately had phones installed so he wouldn't have to climb the stairs(-we couldn't help remembering ".....all they ever found was thist his pants and roundabout " from 'Orphant Annie.')"

"The next order of business, before we could paint walls and floors, was to install windows. Our window sashes were lovely but we must admit that they looked the least little bit unfinished for the six weeks that the glasiars were on strike. Just as soon as that little item was out of the way we were ready to start making progress-we thought. We have finally convinced ourselves that the beautiful, easy-on-the-eyes lighting fixtures, which we have had on order for four months, just were not right for our use-anyway, the ones we have installed now are very nice and THEY were only lost for three weeks!"

"The lovely pastel colors which were chosen for the offices and studios turned out beautifully-with one exception, some gremlin got into the studio where the paints were stored and brewed up the-to put it mildly-weirdest shade of blue these old eyes have ever seen. Since the painters were due to leave on a 10-day vacation and had their minds elsewhere they neglected to take a good look at what they were painting until it was finished."

"We are happy to report that after their vacation they repainted the studio a nice, soft green, also that the people who worked around that particular studio for the ten days the painters were gone are now beginning to regain their sense of color and can also distinguish night from day."

Then this information burst from her typewriter:"Our very modern office equipment-which was due August 1st, then September 1st-is being ably replaced by a few odds and ends which we have managed to borrow here and there, We might also add that we are doing an admirable job with the improvised forms we have worked up pending receipt of our bookkeeping and accounting forms which were ordered 3½ months ago."

"This next opus could be called 'A Towering Snag,' or why things go wrong. The next item was the erection of our tower in Willow Run. The first mistake we made there was in digging a hole back of second base during election year. After we had convinced everyone 'concerned' (?) that we had previously made arrangements to provide superior ball diamond that little faux Pas was cleared up. It was necessary that we dig 10 feet for the erection of our base-at 9 feet we hit water and, as we merrily slurped through that, at 9½ feet we hit the jackpot-q uicksand! These little discoveries necessitated driving piles and upon inquiry we were informed that the only place the proper piling could be obtained was Louisiana. Just before the lovely pink and blue straitjackets arrived for our officers some kindly gremlin informed us that there was just a possibility that the necessary piling might be obtained from the power company at Cleves, Ohio. It was. One 40-foot trial piling was driven; at 17 feet-red light; after much driving we were able to reach 18 feet. Twenty-four such piles did the work. The base construction was originally scheduled to take 4 days-so far we have been at it three weeks. Special nuts and bolts of high tensile steel are necessary, naturally, they are not available. We were finally able to secure the nuts in Pittsburgh and the metal bars which were secured in Youngstown are now being machined into bolts here."

"So far we have only one other little item to report-each time the clam is put into the ground to deepen the holes-the major portion of Willow Run's sandy loam trips merrily over the edge and settles down at the bottom very cozily for a ' Long winter's nap."

"At any rate we are proud to announce that our studios are now in operation. We might also add that we are disciples of the sage who said:"You don't have to be

crazy to be in radio-but it helps."

"So baby ZIP did it! When Dr. Bondy threw the switch on October 5th little ZIP came out with as loud a bellow as has ever delighted a doctor's heart. Folks for miles around sighed a big sigh of relief and settled back in their chairs to enjoy the sound.

IN THE YEAR OF 1948 WE FIND THE FOLLOWING PERSONNEL AT WZIP

Lloyd W. Baldwin.....program director
 Stephen Crane.....announcer, music impressario, man on the street.
 Bette Cleaveland.....announcer, Lady of Today.
 Jim Macke.....announcer, disc jockey
 Leo Underhill.....staff announcer.
 David Murray.....staff announcer.
 Ray Scott.....farm announcer & Hillbilly disc jockey.
 Earl Jenkins.....music librarian.
 Richard Washington.....Chief Engineer.
 Irvin Heineman.....engineer.
 Henry Weiz.....engineer.
 Julian Koenig.....engineer
 Audrey Dapper.....secretary.
 Anne Von Lehmen.....traffic.
 John Flagler.....porter.
 Joe Rice.....engineer

On that October 5th of 1947 you heard the voice of the President of WZIP, Arthur Eilerman, say: "Good afternoon ladies and gentlemen, and a hearty welcome from the management and the staff of W Z I P....Your radio voice...entirely owned and operated by three northern Kentucky citizens...Mr. Gregory Hughes...Mr. Charles C. Grimes, and myself...with no ties with any other station or group of stations...It's a real thrill to be able to say these words of greeting to you today...after waiting two years for the opportunity...one and one-half years of idle waiting...and six months of rushing like mad...to make up for the year and one-half of idleness... which only proves..."You don't have to be crazy to be in radio but it helps."

"These last six months of accomplishment would not have been possible without the help of friends too numerous to mention by name...the contractors who rushed our studios and transmitter building to completion...the editors of our city and country newspapers who publicized our work...the members of our staff...who have worked hard and long hours...so that we might bring you the finest programs...and the merchants whose faith in us and Northern Kentucky will make possible a continuation of our activities. We wish also to thank the men who have helped us dedicate this station today...for the time they have given...the many nice things they have said...and for climbing the three flights of stairs to get up to our studios here on the fourth floor."

"Present with us in the studio today is a group which has been meeting and working with us for over a year to help us bring to you the best in local programs, and it gives me a great deal of pleasure to thank our program advisory committee for their help and inspiration during these busy months. I wish now, as President and General Manager, to dedicate radio station WZIP to the people of Northern Kentucky to the end that we may help further their cultural, social, and economic development so that Northern Kentucky will be for all of us a better place to live, grow, and prosper... Thank You All."

"And so little ole "ZIP" is on the air. Then in April of 1948 newsletter No. 18 had this to say : "The flood came or-always put your tower down low if you have web feet! Call out the bailin' Crew- The boat's sinking again!"

We don't suppose the fact that Northern Kentucky has been in the throes of a flood of major proportions for the last week is exactly news, but we thought you might like to hear how little ZIP came through with flying colors in spite of h-ll and high water. When a flood was in the offing we needed a boat for the engineer's use in getting to and from the tower so immediately when the water began seeping around the

floorboards we dashed out and found a boat, took it to 9th and Horton and tied it to the bank. Some youngsters, anxious to help keep the station on the air in this flood emergency, got it loose. We chained it to the bank, our young friends broke the chain; double-chained it to the seat, out came the seat! About this time it started to rain, our little helpers went home but the rain filled the boat. Up came the flood waters, down went the boat which was chained to the bank. With the help of hip boots (and a few ejaculatory comments) our engineers dug it out again."

During this period WZIP was between chief engineers. Millard had left and Dick Washington the new chief engineer was scheduled to take over on Friday. Irv Heineman, a friend of mine, and we both had worked at WPAY in Portsmouth, Ohio, found ourselves at WZIP one day before the flood. Irv was acting chief engineer and I was helping him. As I had said, WZIP's tower was located in a basin which was prone to fill with water at the slightest provocation as the flood wall was not yet completed and water backed up the drainage system and flooded the whole basin to a depth of about 15-feet. The antenna tuning was situated about 16 feet above the ground on a wooden platform. We had to disconnect this unit and haul it up inside the tower to get away from the water. We got it up with the aid of a home made winch and a lot of muscle. We disconnected the tower lights and notified the FCC and the FAA that there would be no lighting on ZIP's tower.

Irv decided that it was not possible to feed the radio energy at the base because the water was now over the fence which surrounded the tower and also over the base insulators. We decided to feed the tower about midway up and with some drawing board work we came up with a plan to use two parallel wires spaced about 2-inches apart to carry the radio power to the new point on the antenna. The distance from the rim of the basin to the tower was almost 300-feet. We bought enough wire and some glass spacers to hold the two wires apart and planned on rowing a boat out to the tower and to tie both wires to the top of the fence. As the water was perfectly level we had reasoned we could row a boat across the water and by stretching the wires taut from the fence to a nearby bank we could more easily space the two wires. I use the word "boat" loosely, as it actually was an old cement tub used for the purpose of mixing cement. Our oars were simply two old boards.

I think both of us felt like Tom Sawyer as we stumbled down the canyon in darkness to reach this boat. We climbed aboard and rowed out with our cargo of wire and other gear, and reached our destination. We tied the wires to the tower at such a height that we could reach it while sitting in our boat. We wanted to stretch the wires over the water at this height so that we could place the glass insulators at about three-foot intervals as we rowed along. This meant we had to row back to land and secure the other ends of the wires to a tree on the hillside. We made it alright, but found that the wires were sagging in the water! To get around this we rigged up a pulley arrangement just above the water level and ran the ends of the wires up the hill through a pulley and on up the bank and tied each wire to the bumper of our two cars. We carefully backed up each car until the wires pulled out of the water and began our work. We hadn't gone halfway when one of the wires suddenly went slack! What now? Only thing to do was to row back to shore and climb the bank and find the break. At least we thought it was a break. As it was dark we held on to the wires and felt them as they slid through our fingers. We were almost to the cars now and still no break. My wire was still tied to my car and I was about to inform Irv when He let out a small yell with a few ill-chosen adjectives. His car was gone! The wire had neatly been untied and the car was free to be driven away. He later found it somewhere in Covington. We made for the moment by using one car to tie both wires to and without further incident we completed our task.

The entire staff of engineers and announcers put in so many hours during the night that the strain was beginning to tell on the daytime schedule, so Mr. Baldwin was finally driven to the extreme measure which proved the emergency of the situation—he had to put the Eilermans on the air! Mrs. Eilerman put on a disc jockey show to end all disc jockey shows and she said "...yours truly gave news...river stage facts...and weather reports." Carmen later said "If we had to stay on the air one more night the porter was lkned up for the night shift announcing."

A little note for the "Missourians" who want to be shown ZIP's listening audience. At one point the Cincinnati Council asked us to run a bulletin to the effect that Senior

Scouts were to report to a given destination in one hour to give the Red Cross a lift. Mrs. Eilerman said "We ran the bulletin at 12:30 and by 1:30 (the given time) 75-scouts were on hand for duty. Mr. Willard Friend, Scout Executive of the Northern Kentucky Council, Boy Scouts of America, reports that our appeal for scouts to help brought out from three-hundred to five-hundred scouts and ex-scouts in a little over an hour, and that they reported so fast that he lost track. There may have been many more."

Immediately after an announcement given by ZIP in regard to traffic detouring over Kyles Lane, the folks along that route thought the flood had floated the Dixie Highway past their doors. The proof of the pudding is in the eating and things of this nature won't show up on a rating-survey.

Carmen went on to say "Lloyd Baldwin, the program director, should have a word of thanks here-he kept all the loose ends tied together, programmed a 24-hour day schedule with an 8 hour staff, and put in about 20 of the 24 hours himself during the entire emergency."

Mrs. Eilerman said later "We know that each and everyone of you at some time during the flood emergency heard Dick Perry, our roving reporter. If you could have seen him at 2:00 o'clock this morning when he came back to the studio after we had gone off the air you would have realized that the amount of sleep he had during the entire period could have been 'put in a pig's eye' as the old saying goes." After a brief pause Carmen recollected: "The only sleep he had during the entire period was the little bit he grabbed on top of the studio grand or someone's desk inbetween jaunts with his wire recorder to points of interest to our listeners. He really deserves a big hand for a job well done. His last remark last evening as he hopped in a cab for home was 'I'm going home and sleep until Wednesday.' When the flood was over, but not forgotten, a letter was received from the Campbell County Chapter of the American Red Cross which reads as follows:

Dear Mr. Eilerman:

Now that the extreme pressure of the emergency has been somewhat alleviated we want to recognize the cooperation of organization and individuals without whose assistance an effective operation would have been impossible.

It is hardly necessary to tell you that your radio station performed outstandingly during the period of the emergency. As you recall there were two phases of this disaster. The first was the usual mobilization of community resources by the American Red Cross to meet the emergency conditions. The second was the valiant, even heroic battle of the flood wall. Every request made to your station was carried almost immediately. Members of your staff including Messrs Baldwin, Sullivan, Adams, and Perry gave wholehearted cooperation. Special recognition must be given to Mr. Dick Perry. His wire recorder broadcasts interpreted the needs dramatically yet not frantically. To him must go credit for allaying panic during the fateful hours during which the effectiveness of the flood wall was uncertain."

Your stature in the radio industry grew tremendously as a result of your service during the emergency. We hope that the marvelous relations between the American Red Cross and your station will continue during the coming days and years.

Sincerely,

John B. Nichols, Chairman disaster Comm.

Henry J. Cook, Vice chairman disaster committee.

In news-letter No. 29 written by Carmen Eilerman some introductions to the staff personnel were given. It was in Jul of 1948 that she said "You'll remember that Ray Scott was in the midst of a malady when time came for his introduction and for fear the letter would reach you just as they were lowering the remains, we held up the presses on telling you about him. Recent reports from Ray now are that he thinks he'll last a few more years if he's just more carefull about eating spaghetti and meatballs in the midst of a hot summer day. If you didn't know about Ray he was born in Junction City, Kentucky, and is the second son of a family of eight boys. He studied agriculture and dramatics in the Morgan High School and upon graduation started a career in farming. As the other six Scotts began arriving and seemed like such robust little helpers for Mom and Pop, Ray decided to take a fling at show business. Was on the road as an entertainer, musician and broadcaster until 1940 when he enlisted in the U.S. Army Air Force. For the next 4 years and seven months did all of his entertaining in the Air Force as a combat radio-op-gunner; was discharged in 1945 with a record of 89 combat missions. Worked for two years with commerical airlines but when ZIP hit the air Ray came along to make sure his farm friends were entertained properly. Ray is now serving a hillbilly disc jockey and farm editor and from the looks of his mail each day is one of the most popular entertainers around these parts. Ray is married and has a robust little hillbilly named, strangely enough, Billy. Those of you who attend the Jubilee and follow the strange lives and loves of the "Turner Family" will remember Ray's stellar acting as the oldest son of the family, Pancake Turner. Those of you in touch with the farm families in Boone County will remember and recognize him as one of the Scott boys of Boone County. Those of us at ZIP who come in contact with Ray each day think of him as one of the most cooperative members of the staff, with a courteous and pleasant word for everyone. He's not such a big guy physically but 'good things come in small packages' and Ray is hoeing a wide row of popularity and good programs for all our farm listeners and many of the urban listeners too. Try to catch one or more of his programs and you'll see what we mean." so said Carmen's letter of July 12th, 1948.

I might add my own comments here as to the reason for listing the various personalities in an anthology of radio such as this. For one thing I had considerable difficulty in writing about the early days of radio in this Cincinnati area because very few records were kept. It is my thought now that if the personnel is listed here now along with as much of their personal history then a better understanding of the programs that these persons participated in will be garnered.

Carmen said in letter No. 27 "The salesman's job in a radio station is an interesting one, but also a tough one. It involves calling on all prospective clients and after discussion with each trying to evolve a program which fits that particular client's business. It very often involves talking a customer out of a program which he feels is a natural but which the salesman knows from experience will not bring results for the particular business the customer is engaged in. Believe it or not, this is sometimes harder to do than to sell a client who has no pre-conceived ideas. His checking to be sure they are completely happy with the program or spot announcement as it stands. It's a big job in any man's language."

"Gus Adams, WZIP's salesman, is 26 years old and lives on Burdsall Avenue in Fort Mitchell. He is married and his wife has the nickname of Pat. Don't ask us how the Dutch and Irish got so chummy-we don't explain, we just report facts. Gus is strictly local material, having lived on Greenbrier for as long as we can remember prior to his marriage; attended Xavier University and graduated in 1942; entered the Army in the same year as an artillery officer and ended up as a P-51 pilot and a 1st Lieutenant, spending the last ten months of his four year's stretch in India and China. The next time he comes calling get him to tell you some of his experiences in the land of the heathen Chinese and the land of the 'Sacred Cow.'"

One of the persons who kept the wheels turning at ZIP was Lloyd Baldwin. He started out as farm editor and then became program director in June of 1948. In that year Lloyd was 31 years old and residing in Independence, Kentucky. Carmen's letter continued "... is married and the father of one daughter, Deborah; takes great pride in having been educated in one of the last one-room schools in Northern Kentucky and is a graduate of the University of Cincinnati and of Kentucky Wesleyan College in

Winchester, Kentucky; has been radio actor, WLW-WSAI-WCPO; radio director Key advertising agency in Cincinnati; advertising assistant Lever Brothers Co., advertising copywriter; sales analyst; surveyor for Kenton County Farm agent; English instructor; Radar training officer (U.S. Navy) producing instructional recordings and movies for three years; left the Navy with the rank of Lieutenant."

"The first few times a radio program is aired the program director personally writes all material for the show, chooses music and directs. After that it is farmed out to some other member of the staff. All rehearsals and auditions and decisions regarding acceptability of both are handled by the program director. The job of program director in a radio station is an all-encompassing one. Each program is a direct responsibility of the director even though they are farmed out to various individuals for assembling. This farming out process takes place only after the program has been aired several times. The first three or four times a new program is aired the program director personally writes all material for the show, chooses music and directs. Among Lloyd's hobbies are; he paints; he writes; he constructs radios; and there is no limit to this man's hobbies." and then, rather sadly, she added, "When he's not ZIPing." Then Carmen added this: "There is just one more item we would like to add to the duties of a program director-he is also responsible for keeping the elevator and the Coke machine in operation. Figuring roughly we've decided that the job takes about 50% of his time."

Newsletter No. 25 gave particulars on Steve Crane who was the assistant program director and the writer-producer of the classical and semi-classical music programs. Carmen Eilerman continued with her character sketches on the assumption that "Silence gives consent" and started the series anyway. (You can't insult us-We're too ignorant!"

"We're very proud to tell you about our Mr. Crane. We say 'Our' Mr. Crane because that's just the way we feel about him. He's a home-town boy and this is his first radio job...we took him into our midst even before he had graduated from the College of Music in Cincinnati. He graduated this month with distinction. He is now teaching production at the college, being one of three selected from his class for teaching honors. Steve was born and raised in Covington, was a member of Archie Williams Boy Scout troop at the Baker-Hunt Foundation and graduated from Holmes High School. From there he went on to the University of Kentucky, North Dakota Agriculture College and then, after four-years as a Lieutenant in the Army, to the College of Music. He is 26-years old, 6 feet 2 inches tall and is interesting looking enough to bring people from all over our listening area just to look him over and enjoy his special brand of informal chit-chat on the Man-On-The-Street program. His success on this is evidenced by the number of repeat visitors he has almost every day. As you may have gathered we think Mr. Crane is an exceptional person and we'd like for you to know him too. Visit him on the passing-opinions program from 11:30 to 11:45 each day Monday thru Friday and listen to the unusual programs of good music which he produces each week. Remember the programs also for Symphony Hall are yours, free for the asking."

According to Carmen "WZIP went on the air on October 5, 1947. That statement proves 'fools rush in where angels fear to tread since we had been unfortunate enough to lose the only one of the three stockholders who knew enough about a radio station to plug in a mike. Instead of offering the station for sale to someone who knew how to run it, we had rearranged the stock picture, sold a portion to my Dad and with a wide-eyed expression, announced 'This is WZIP' on that day."

She continued "My boy at that time was 6-months old (having arrived after 9-years of married life) so initially my part of the operation on the station was limited to staying up till 1 or 2 every night helping with the planning and the bookkeeping. It was decided that I should fill in on the air work. As I remember it I worked with the Chief engineer/announcer on a 15-minute bit using 'Homemaker's Harmonies' and from that came the bulletin board show. It was a fifteen minute show featuring announcements of meetings and church and school announcements. This show was assigned to me on July of 1951. A knowledge of many of the groups and the people who were members gave me an advantage over some one else doing the show, I suppose. The organizations using the show increased to the point that it was impossible to get all the announcements and the guests in the 15-minute period. The sponsor, The First Federal Savings & Loan Assn., doubled the time in October of 1952. It has now built up to the point where over 600 (1958)

separate organizations are using it and these include schools, PTA organizations, churches of all faiths, veterans groups, fraternal, lodges, police and fire departments, auxiliary police and fire groups, civic groups, city hall, Red Cross, Unions, Boy and Girl Scouts, historical societies, YMCA, Chamber of Commerce, Service Clubs, SPCA, etc.

This is the program used for fund raising campaigns, "On thursday morning we had the drillmaster of the Covington Fire Department with a report of previous week's activities of the ambulance and fire equipment, On Friday morning an interview with the Covington Police department giving traffic situation of the previous week, report on accidents, etc." Carmen said. In an appraisal of the show she said: "Several of the items have become too bulky for the show and we will take them out in the near future and make them 15-minute segments of their own-such as the reports from the SPCA shelters. Since we have started this the shelters are almost always dogless and catless, and very few animals have to be destroyed." In 1955 it was said "The Bulletin Board program is also the one which Carmen made the initial announcements 4 years ago regarding the need for the organization of a council for parents of retarded children. This story may be familiar to you but here's a brief resume: Questions on Bulletin Board brought sufficient response from parents that a meeting was called in the studios at which time 50 mentally retarded children were represented by parents. A council was organized with temporary officers at the first meeting. For one year a school for these children was conducted in the Sunday School rooms of a local church, the following year attendance increased to the point it was necessary to change quarters and the president of WZIP and Carmen purchased a \$25,000 building (without the \$25,000) and the school is now in operation there, Forty children are in attendance (1955). We are now a part of the community chest, but until last year our operating costs were met by the proceeds of an annual Tag-Day. Again, the contacts made through the Bulletin Board, and the publicity radio was able to furnish, brought about a rather amazing situation for this area. Service clubs women groups, and many others, who, in the past, had confined themselves strictly to their own individual efforts, all pitched in and sold TAGS on the streets of Newport and Covington.

Children and adult groups canvassed the outlying areas. This was the second such council in the State Of Kentucky and to my knowledge is still the only one which operates a full time school, in their own building, without cooperation from either city, county, or state."

.....1947 KENTUCKY MARKET DATA-when WZIP came on the air.....

COUNTY	POPULATION	RETAIL SALES	RADIO FAMILIES
KENTON.....	93,139	\$25,667,000	24,175
CAMPBELL.....	71,918	\$18,813,000	18,480
BOONE.....	10,820	\$1,147,000	2,289
GALLATIN.....	4,307	\$596,000	701
GRANT.....	9,876	\$1,701,000	1,802
PENDELTON.....	10,392	\$1,400,000	1,973

For many persons who are not acquainted with the Northern Kentucky area, some review might be in order. For one thing the northern most part counties of Kentucky are not really related to one another. Most people call the whole area simply, "Northern Kentucky" and don't realize the enormity of the geography. For those people who live in the greater Cincinnati area and have never visited this beautiful section of Kentucky have a treat in store for themselves when they do so. The enormity can be realized when you think of five separate counties, each one as large or larger than that of Hamilton county. The three counties of Boone, Campbell, and Kenton average over 1600-miles of secondary roads each. There are dozens of cities scattered the length and breadth of the northern counties in Kentucky. As far as radio coverage is concerned it presents a problem, not of coverage, but of programming. The people are as varied in culture, religion, taste, and economic levels as you will find anywhere. It is difficult to satisfy the needs of all the people in these different places. For instance, in the case of schools, it is vital that all of them be contacted to get the news, and this means many telephone calls to each one. This is a far cry from a single radio station catering to the needs of just one city. There are also many political

subdivisions, different taste in music, several religious faiths, a vast range of economic life, age differences, etc., and all this adds up to a real programming problem. WZIP solved it, and I might add, never did a 250-watt station have such good coverage, and what's more important, knew how to use it.

*****A LOOK AT THE WZIP SCHEDULE FOR THE YEAR 1947*****

7:00 AM.....Hillbilly roundup (live music)	1:00 PM.....Congratulations
7:15 "Farm Journal (live)	1:15 "Passing opinions(live remote)
7:30 " " " "	1:30 "Tommy Dorsey
7:45 "Weather clock	2:30 "Hawaiian Harmonies
8:00 "Last Breakfast Call	3:00 "Lady of Today
8:15 "Morning Worship	3:15 "Dave Rose Music
8:30 "News	3:30 "Songs of Romance
8:45 "Bulletin Board	3:45 "News
9:00 "Morning Musicale	4:00 "Dance Orchestra
10:00"Scrapbook of Melody	4:15 "Good Neighbors
10:30"Music For Moderns	4:30 "Revolving Bandstand
11:30"Latin Rhythms	4:45 "Movie Menu
11:45"Bluegrass Ramblers(live)	5:00 "News and Sports
12 noon.....Market Reports	5:15 "Music Appreciation
12:15 PM....Dinner Time Fiesta	5:30 "Dinner Music
12:45 "News	6:00 "Sign off

Some of the other programs advertised in the newspaper with the heading
"TUNE TO 1050-IN THE MIDDLE OF YOUR OLD RADIO DIAL"

For the best in music listen to Jim Macke as he spins popular platters at your request...spike Jones entertains on the "Music Depreciation Hour"... Music Hall, a local school orchestra on the air every Sunday...the super disc jockey, Tommy Dorsey, heard on no other greater Cincinnati radio station (Tommy Dorsey's voice was on record introducing each number and the local DJ spun the record on cue from Tommy...The farm journal 7:15 daily...and for northern Kentucky women-The Woman's hour-a full 60-minutes of music, fashions, household hints, and news..."Lady Of Today" a daily interview with an outstanding Northern Kentucky woman...Penny's "Hi Ladies" radio show each monday morning at 10:30 AM with Steve Crane draws several hundred women each day...in 1950 the first in a series of weekly recorded concerts in Devou Park will be presented Sunday afternoons and evenings over the new public address system at the band shell... this according to an announcement made by Joseph F. Pieper, chairman of the Covington Park Board...program of music will be presented by WZIP each Sunday afternoon from 3:00 to 5:00 and each Sunday evening 7:00 to 9:00 PM with the afternoon program consisting of popular music and semi-classical and familiar music in the evenings...this by way of attracting more people to the beautiful Devou Park and serve to acquaint them with the facilities there...the first evening concert presented at 7:00 PM Andre Kostelanetz and his orchestra playing the music of Richard Rodgers, George Gershwin and Duke Ellington and at 8:00 PM the final portion of the concert will present music of Eugene Ormandy, Arthur Fiedler, and Howard Barlow...on April 10th, and every Saturday thereafter, all of ZIP's hillbilly talent will appear on two big shows given at the Library Auditorium at 6:30 and 8:30 each night. Tickets will be 60¢ for adults and 35¢ for children...the farm program were something to be proud of with at least 10 county agents appearing at different times over WZIP, and an average of 32 farm boys and girls and 29 farmers and their wives per month have spoken over ZIP's mikes...an interesting sidelight appeared in Carmen's letter of June 1, 1948. "We take our slogan 'The best in music for the best people we know' very seriously and fulfilling this pledge involves giving the best in a number of types of music in order to please all palates. In our last few news-letters we have had occasion to mention the 'Hillbilly' and 'Race' sides of our musical program offerings. We would like to dwell on the other angle now-the classical presentations. First, let us tell you that when we were doing our original programming before ZIP went on the air we were given to understand, verbally and through all surveys and articles on the subject we could find, that the higher type of music was definitely

anathema for daytime listening. If it were possible for you to check the program schedules of Greater Cincinnati stations prior to the time ZIP went on the air, you would find that all classical and semi-classical music was programmed for evening, the implication being no doubt that the fair sex merely tolerated 'High Brow' music when Pop was home to force it on them, Which reminds us of Penny in this morning's Enquirer funny pages-'The things some women do to hold a man.' The forebears of ZIP felt that this was definitely unfair to our womenfolks and decided to pioneer. The surveys, phone calls, personal comments, and letters which we have received prove that our program department didn't overestimate the listening interests of the folks in our listening area. Since our programs have proven so successful you will find, by picking up the program schedules for the day, that other Greater Cincinnati stations are following our lead. Imitation is the sincerest form of flattery!"

From 9:00 to 9:30 AM Monday thru Friday the "Morning Musical" semi-classical music program is heard. Popular concert tunes, scores from musical comedies and any other works which do not quite touch on classical music. This is a half-hour of solid enjoyment with lovely, familiar tunes throughout. The program is uninterrupted with commercials and is good listening whether you are driving to work, washing dishes, dusting the stock or stretching out for a wee bit of relaxation. The program is under the direction of Steven Crane and is produced by Earl Jenkins, our music librarian. Another program in the same vein was "Concert Hall" heard Monday through Friday from 2:00 to 2:30 each afternoon. Here we have light concert selections, excerpts from operas, melody sections of classical operas and salon pieces. "This program is used as our 'Calendar program for music,' said a news letter, and continued "If the date is the anniversary of any important occasion in a composer's life we honor him on that day by dedicating the program to his music. If you're beginning to drag a bit about this time of day and want something real restful to put you back on your feet and in a mood of good humor for the day, dial this program into your home, business or car. Again the program is directed by Steve Crane."

Another outstanding show was "Symphony Hall," 2:00 to 3:30 PM on Sunday. This show presented complete symphonies and is guaranteed as a perfect digester of that extra special meal Mom fixes on Sunday in this year of 1948. This program is a bit heavier vein and is presented at a time when it is supposed our listeners have the time to listen and enjoy. In newsletter No. 24 Mr. Crane said "We are enclosing with this letter a mailing piece which we hope you will find useful in listening to the program and will be more than happy to put each and every person who writes in and requests it on our mailing list."

In 1953 the business and professional women of Northern Kentucky honored Mrs. Carmen Eilerman with the "Woman of the Year Award." It was on October 21 of 1953 that the Cincinnati-Post wrote a feature article which stated: "Carmen Eilerman is selected as 'Woman Of The Year' by the business Women's club. Carmen Eilerman, popular radio personality who is the wife of Arthur Eilerman the president and general manager of Radio Station WZIP. She was given this honor at a dinner sponsored by the Covington Business and Professional Women's club at the Hearthstone, a popular dining establishment of the Dixie Highway, Tuesday night where they said she was 'The Woman Of The Year Of Northern Kentucky.' In observance of business Women's week and in compliance with the program of the general federation, the Covington Club selected by ballot Mrs. Eilerman as the most outstanding business and professional woman in this area. From candidates selected by the Kentucky clubs will be named a person for the state honor."

In presenting the award, Mrs. Rosella Wyman, past president of the Covington Club, read the resolution which pointed out that Mrs. Eilerman was named because of her courage and initiative during her entire business career, her understanding of youth, its needs, and for being instrumental in the success of the Girl Scout movement locally. It was also set out that Mrs. Eilerman has supported countless civic endeavors, including the much-needed school for Mentally retarded children in Covington, has given valuable aid in working for funds and supplies for . . .

charitable purposes, and as an outstanding radio personality aided the development of journalism through public schools."

As a closing tribute, the resolution described Mrs. Eilerman as an "Accomplished homemaker and devoted mother" to her son Chuck. The speaker of the evening was Gilbert Kingsbury, vice president of the Crosley Broadcasting station, and he discussed northern Kentucky personalities closely identified with the history of the nation.

Among the many awards Mrs. Eilerman received, or was nominated for, were the McCall's Award to women in Radio & Television. Mr. Ernest Lackey of radio station WHOP at Hopkinsville, Kentucky, said in a nominating letter "...it is therefore a great tribute to the singleness of purpose, initiative, energy, determination, and ability of Carmen Eilerman that she was able by means of her radio program over WZIP to organize the campaign to aid retarded children by establishing a special school for them. The success of her efforts is attested by the support the school is receiving in Northern Kentucky." He then said "As a broadcaster, it has been my privilege to know Carmen and observe her talents in action. She is certainly deserving of the McCall Award to Women in radio & TV on the basis of this one project alone." Mr. Frank Hogan, manager media relations of McCall's said "We would like to congratulate Carmen Eilerman on the fine public service work she has done in the past year, and hope that your station will be next year's contest and that she will be one of the 1953 winners." In a letter from Bill Ladd addressed to Mrs. F.H. Linkenberg, of Louisville, he said "It appears that Mrs. Eilerman is responsible for changing the attitude of her community from 'Isn't it too bad?' to 'Let's do something about it.' Further, 'It seems to me that it is things like this, done by radio, which make the community station a real value to the community at large.' In a letter from Mrs. Wayne Rusk, Jr., it said "...I do want to congratulate you on being selected as 'Woman Of The Year' in Northern Kentucky. That is a nice honor and you truly deserve it as you have certainly worked hard in civic affairs as well as being a mother and homemaker."

The studios of WZIP were on the fourth floor and an elevator was needed which provoked an amusing anecdote. In the news-letter No. 23 written on May 24 of 1948 Carmen said "This letter will cover the most recent development at ZIP. For months we have looked forward to being able to announce to you that the elevator in the ZIP building was running. We have had visions of all our friends who have wanted to see the studios and offices running madly to 6th and Madison and riding up to the fourth floor in style. We've been keeping our best bibs and tuckers in first rate shape so we'd be real pretty to meet you all. On Monday, May 17th, everyone in the building was deliriously happy when we were told-'No more steps-' THE ELEVATOR IS IN OPERATION!!!! Everyone found some excuse to ride up and down three or four times just to sneer at the steps as we rode leisurely by. On Tuesday all of the temporary steps had been torn out and work was started on putting the new ones into place. There was only one draw-back to our complete happiness, the doors were just a little hard to operate. While we were opening the second door the first one would sneak furatively up behind us and shove our faces up against the opposite wall, even this was not too much to bear if we just didn't have to walk the stairs. For the biggest part of the week that was the only shadow on our horizon."

"Before starting this letter we lined up all the dictionaries, encyclopedias, and finally a copy of Emily Post to find out just what an elevator is and what it's supposed to do. Each and everyone says the same thing, 'A mechanical contrivance for raising people from one level to another'-never a word anywhere about 'occasionally.' In each definition you are left to assume that this mechanical contrivance 'goes up and down whenever it's called upon to raise people from one level to another' but not our elevator. Oh No! Our elevator is not a 'mechanical contrivance' it has a personality and mind all its own- it goes up and down when it wants to and after one or two loads in succession it stops-period."

On Saturday morning our little friend with the bright blue walls took just enough people to the fourth floor to keep the station on the air and then stopped running. The later arrivals all full of pep and anxious to get to work as all good WZIP employees arrive for work, strode manfully into the building lobby and pushed the button for aforementioned elevator but the aforementioned elevator was resting and wouldn't budge until the man from Warner Bros. came over and tickled her ribs or something. Jimmy Lee, the piano player, has always been an admirer of Uncle Frank Miller's fiddling and at times has mentioned he thinks it's heavenly but he was a little startled, to say the least, when Uncle Frank Miller walked into studio "A" during Jimmy's broadcast through the fourth story window (via fire escape) as we explained to Jimmy after we revived him."

"On Saturday night little "Elly" took just enough people to the fourth floor to fill studio "A" but when she went back down and saw the crowd waiting to go up she went on strike again, Warner's serviceman had to come from Cincy to whisper sweet nothings so we could get the equipment necessary to put the hillbilly show on from Burlington."

"All Sunday morning Fergy, our engineer, alternated between throwing switches and riding up and down on "Elly" with the Spiritual Singers who appear on our Sunday morning broadcast. The Warner man finally showed us where the little gadget rests that keeps "Elly" in operation. It's called 'over-load' and most of the week-end Fergy was up in the loft over the building muttering incantations over "Elly", the over-load, and the world in general. After this bit of explanation may we respectfully suggest that all you nice people who want to come a-callin' wait until the stairs are replaced. We don't mind too much having our staff running up and down the fire escape like little monkeys but we'd right be embarrassed if we had to ask our friends to do it too."

On January 27, 1956, the newsletter stated "Station WZIP of Covington will join a network of 41 Kentucky stations at 5:30 PM Friday, to broadcast Governor A.B. Chandler's first 'report to the people.' The broadcast will come directly from the Governor's office in Frankfort." On May 8, 1956, in commemoration of Mother's Day, a representative from the Greater Cincinnati Retail Bakers Assn. was to present a Mother's Day cake to Carmen Eilerman in the "Memory Lane" program over radio station WZIP Tuesday morning. There were to be songs from 1914, the year Mother's Day originated, featuring "A Little Bit Of Heaven" recordings of the year. This date was selected because it coincides with Carmen's birthday.

The women's show, variously known as "Your Show" and at one time as "Ladies Matinee," and later as "Carmen's Corner" was one hour long featuring interviews, circus clowns, elephant trainers, ballet teachers (series of the History of the Dance from the earliest known gyrations interpreted as dancing), doll collectors, travellers, representatives of the Art Museum on current exhibits, director of the Symphony, Homemakers groups, authors, artists-you name it and it has been on WZIP. The program had music, food(not recipes), household hints; 15-minute inspirational or scrapbook; monthly contest; open phone line during show; 65 of the listeners sponsored two foster children.

Another program was "Memory Lane" using the old-time player piano rolls and red seal records along with highlights of the news in the particular year chosen for a program. On Sunday's you would hear "Your Town" which started with the City Managers report and continued for years covering any subject or topic of general interest to good citizens.

On Monday, July 15, 1951, changed half hour morning show to "Your Show" aimed at both women and men. WZIP continued this until Monday, August 18, 1952, and then program was switched in order to have more time for "Ladies Matinee" from 1:00 to 2:00 in the afternoon. This was done with a male announcer until November 7, 1952, and was made up of interviews with interesting people, fashion notes, music, household hints, some humor each day etc.

I had said earlier that WZIP did many remote broadcasts. They used equipment manufactured by Collins Radio for these shows. Several model 12-Z remote amplifiers which had provisions for four mikes on each one. The remote amps had an emergency power supply of batteries so arranged that if the regular power from the electric lines went off, a special automatic switch would instantly convert to built-in batteries and no time would be lost on the air. Which brings up newsletter No. 32 on this subject of remotes. "Our lesson today is on 'remotes.' That's a term indicating any broadcast originating out of the studios. Don't feel badly if you didn't know that—a year ago we didn't either! We have a very unusual situation at ZIP—although we are not a network station (that is, none of our programs, with the exception of the Sunday 'Lutheran Hour', originates in a distant city) nevertheless, we do have quite a few remotes. Each Sunday in addition to the 'Lutheran Hour' from St. Louis, Missouri, our microphones are placed in the Covington Immanuel Baptist Church, Cincinnati's Church of God, and Latonia Calvary Baptist Church. These mikes are connected by telephone lines with our control board at Sixth and Madison."

"Daily Steve Crane handles his 'Passing Opinions' show from the corner of Sixth and Madison and Ernie Waites presents his 'Harlem Echoes' show from the Playbowl on Linn Street in Cincinnati. Every Saturday we air a disc jockey show from Layman's Music Store in Cincinnati, and at present time there's a hillbilly show being broadcasts on Saturday night from Lawrenceburg, Indiana. The Jamboree formerly broadcast from the Covington Library auditorium on Saturday night was a remote, as were the programs originating in the Chamber of Commerce featuring various service clubs, the 'Home Show' from fourth and Monmouth streets in Newport, the broadcasts from the Gas & Electric Company's new building and continual reports from Newport during the flood emergency."

"We might add that we are exceedingly proud of the splendid job our technicians have done on making these remotes go off just like clockwork. Speaking of radio terms confusing people reminds us that one evening when we were just going into operation someone at a meeting asked Pat Hughes if he could spell 'SEQUE.' Spell it," Pat said, "I can't even say it and furthermore I don't know what it means." (just in case you still don't know what it means, it means uninterrupted, in this case by commercials.) It is a term used on radio since the medium began. In the usual sense it simply means to keep running records back-to-back with no pause in-between them."

After the flood in April of 1948 Newsletter No. 31 announced "Tuesday we sat at the Chamber of Commerce with Clarence Jansen and listened to a rebroadcast of the floodwall ceremonies which took place Wednesday afternoon. We wondered if any of the listeners heard the show and if they thought for a minute about the planning and hard work that went into making it the easy listening program it was. We'd like to tell you a little about the way such programs are handled."

"Several weeks ago George Lyon informed us of the ceremony and its approximate date. Lloyd Baldwin, Dick Washington, and your truly (Carmen Eilerman) discussed it at length in our weekly staff conference. Our first thought was to handle it in a direct broadcast but changed our minds when it became evident that a great deal of the program would look interesting but might not be too exciting from a listening angle. We decided to record the whole program and then only rebroadcast the parts which qualified from a good listening point of view."

"Dick Perry talked with all concerned and got a picture of the probable way the program would unfold. He and Lloyd made a tentative set of plans. At the time of the program Dick (with much help from Lloyd, Perry, and yours truly, was all set up with his equipment over the speakers stand. At the last minute we changed our set-up and took the recorder outside. Some helpful soul had changed the original site of the programs and we were caught without an extension cord...the Navy came to our rescue with a cord—that wouldn't work! Washington fixed it quickly but in the meantime Lloyd, trying to be helpful, had pulled the ground

wire. Perry who was wandering around with a mike got the full impact of a 110-volt shock which he passed around to a few folks standing closeby. Finally, he made it to the scene of action and interviewed a number of celebrities. We collected our equipment and left at 6:00 PM."

"Then the work started...Perry went ot work playing back the wire, selected the highlights, and wrote copy to tie them together; Washington came in at 8:00 to record on transcriptions taken from the wire recorder the parts Perry had chosen; Lloyd came back at 9:30 a nd recorded the in-between commentary that tied the show together; and at midnight they checked and timed the completed show (29 minutes and 40 seconds). The original show took over an hour. The result was the fine program we broadcast on Thursday and which we hope you all heard."

Introducing another person on the program advisory staff. Shirley Ferguson of Union, Kentucky. Newsletter No. 15 said: "...she is 43 years old and resides on her farm at Union; is married and the mother of two boys; attended LaSalette Academy and did preparatory work at Kentucky College for Women at Danville; her club affiliations have included Business and professional Women's clubs; Boone County Red Cross; Union Star Chapter O.E.S.; at present (1948) is a member of the board of the Boone County Red Cross; member of the Farm Bureau and treasurer of the Order Of The Eastern Star."

More than 80 programs participated in by 36 schools have been aired. They have presented dramatic programs, club meetings, discussions (serious and social), and musical groups. The 36 schools have been from 8 different counties. Forty-five ministers, representing all faiths, have conducted 210 religious programs. Free time has been given for announcements and programs to the following groups: Veterans Administration, Social Security, Chamber of Commerce, YMCA, American Legion, FBI, Boy Scouts, Red Cross, and the local recruiting offices. Ninety seven fine women have been interviewed by our Bette Cleaveland on the "Lady of Today" show.

In newsletter No. 20 of May 4, 1948, "Have you ever seen a child when it has finally accomplished something it has been trying to do for what seemed, to the child, an eternity? Do you remember the sheer ecstasy shown on the child's face as it clapped its hands and laughed aloud? Since we and the entire staff are speaking for 7-months old ZIP we feel justified in forgetting all of our adult inhibitions about showing off. This is our rather devious method of getting around to presenting to you , our friends and listeners, the results of the most recent survey made by Robert S. Conlan and Associates of Kansas City, Missouri, of the listening habits in Kenton And Campbell counties."

"We are pleased, too, by the fact that the R.T. O'connell agency in New York has written to one of our local businesses, a branch of a large organization they represent, telling them that WZIP is the station for their advertising. It probably proves that the 'B-T-O's (big time operators) realize that if you want the right to advertise 'Home owned, home operated, for home people' you should place a little of your own business at home. We've been reading a lot of newspaper advertising lately and comparing it with some of the figures shown in this survey reminded us of a little story we read recently: 'Some years ago a company put on the market an auto gadget that it announced as the ARISTOCRAT OF GADGETS. The rival firm countered with an ad that read OURS IS NOT AN ARISTOCRAT, IT WORKS! It also made us want to tell you that more accounts are beginning to come into the station, we presume on the strength of this survey, and our future is looking much brighter. Reminds us of the motto of the Marquis of Waterford, THE SHOOT AT LENGTH BECOMES A TREE."

The WZIP production, "Carmen's Corner" sponsored many worthwhile projects. Among these was one of helping the Foster Parent group. In the month of August of 1956 WZIP helped two children in other countries. One was a little girl named Lidia Ponzo a daughter of a poor family in a small village not far from Rome, Italy. They owned a two-room hut made of briacks, with an improperly built roof that leaks when it rains. There is no running water, but the family has built a rudimentary sink in the kitchen, with a pipe that carries water outside. In spite of the extreme

poverty the place is kept very clean. The father works when work is available, which is during three months in summer time and 10-days a month the rest of the year. He earns \$120 a day when employed, wholly inadequate to feed and cloth a family of six. It is hard to realize the conditions under which this child lives-no sanitary facilities, a mattress stuffed with dry corn leaves. The family possesses one bed and two cots, a table and four chairs for furniture and never has enough to eat nor clothing to keep out the cold.

Foster parents is a nonprofit, nonsectarian, nonpropaganda group of persons dedicated to helping children of all countries. Each child receives \$15 per month from donations received of 25¢ to \$1.00 from WZIP programs. Through the efforts of Carmen's Corner little Choo Choong Rim of Korea was helped. Although education is free in Korea in the lower grades it is necessary for the parents to pay \$24 a year to help pay the teachers meagre salary. Choon Rim is a quiet, bashful boy with a pleasant disposition and gets along well with his brother. In school he particularly likes arithmetic. At six years of age his avowed ambition is "to become a wonderful person and ride in a nice car."

During the Japanese occupation of Korea the family of Choo Choong Rim lived in a Manchuria home. In 1945 they were repatriated to Seoul, where the father worked as supervisor in a government office. A few months before Choo Choong Rim was born, however, the father died of a heart attack and on the heels of that tragedy came the greater one of the Korean War. The widow and her two children Choo Choong Rim and his brother Choo Seung Rim, 10, were forced to flee south through the snow and cold of the Korean winter. In Choong Choong-Namdo they found refuge with a friend and in 1952 again returned to Seoul.

The three lived in a dark cellar-room belonging to a widow with four children who lets them have their shelter free. To support her children, the mother sells cotton shirts in the market earning 20¢ a day. Winters are very cold in Seoul, and the cellar-room has no heat, nor do the children have any warm clothes.

Mrs. Eilerman acts as spokesman for the group of listeners by writing to each child and receiving all the answers. She then passes each child's answer to the many supporters. The "Parents" have been helping the two children since October 3rd. During that time many letters have been exchanged with the children expressing their gratitude for the help given. (above information supplied and written by Carmen Eilerman)

Along about October of 1952 the sponsors of "Bulletin Board doubled their time to make room for all the announcements. Monday the 10th of May, 1954, the "Ladies Matinee" moved back to 9:30 to 10:30 AM and acquired a new name of "Carmens Corner," same format. The Women's show, under all three names, has never been offered for sale. Now it is being pitched. Until this time WZIP had felt that it was a show they wanted to have complete control of since it's been a catch-all for many public service deals in a tricky sort of fashion. They felt now it was well enough established with its present format to turn it loose. The participating spots, of course, if it is sold, will have to move to another program. When "Ladie's Matinee" became "Carmen's Corner" and the time was changed, it left one hour in the afternoon to be filled so they have done that with a 30-minute "Zip around the world" featuring various countries of the world with music from each featured each day; and a "Memory Lane" featuring music of certain years, along with happenings during that time, the latter having been added as a daily stint. The "Memory Lane" show was produced with the help of a pl player piano (remember you pumped it with your feet?) in the studio and one at the Eilerman home with 2,000 player piano rolls in the Eilerman basement, a large number of old records dug out of attics and second-hand stores.

The "Your Show" aired at 9:00 AM on "ZIP featured Carmen and Ed Toleman talking about everything under the sun and even Magee Adams has mentioned in his radio column that this show seems to be lucky in their interviews. Anything can happen and it usually does...Now they have come up with a new one...The little

Scamp stories...sponsored by the makers of the "Little Scamp" the gimmick that prevents water leaks in your water tank. It offers a fresh, new \$2 bill for each story about your youngster sent in by a listener and used on the air. In 1951 WZIP announced that it will again broadcast all the daytime football games of the University of Kentucky with J.B. Faulconer calling the play-by-play. A writer, Blaine Marz said "The new ballpark in Covington just off of Pike street will inaugurate something new this Sunday-broadcast a baseball game in the Northern Kentucky semi-pro league. Bill Warren will do the play-by-play for the Charlie's Cafe-Brun's Jug House tilt at 1:30 PM this Sunday. All future Northern Kentucky loop tilts at the new park will be aired, but, in the future game time will be 3 PM. I think WZIP was most likely the only radio station to run its own telephone wires to do a remote. The ball park was only one block from the transmitter and we just ran a pair of wires across the tower site and thus had our own "least" wires!

Mary Wood had this to say in April of 1952: "WZIP had added a new series of ZIV productions to its programs. New dramatic shows will be 'I was a Communist,' and 'Freedom U.S.A.'- Movietown radio theatre'- 'Bright Star'-and 'Mr. District Attorney. These will be added to the radio fare."

A program that will interest brides, new or old, with the stories about wedding traditions and superstitions from all over the world...with a sprinkling of appropriate music and poetry that will delight all women...a half-hour program of interesting and odd facts...called "Wedding Bells." This will be heard at 9 AM on Saturdays and will be sponsored. The famed "Tre Ore" service will be broadcast for the sixth successive year over WZIP from 1:00 to 3:00 PM this Good Friday. A remote show from Penney's in Covington from the second floor level showroom was broadcast at 11:30 a.m. called "Hi Ladies." The Mayors of several northern Kentucky cities were aired over WZIP in 1953 to help organize a drive to sponsor safety checks of automobiles. This program was a success, and out of it came the safety check program from Frankfort, Kentucky.

In 1957 the newspaper said: "The dean of radio personalities in this area, Cecil Hale, has joined WZIP and will be heard Monday through Saturday from 2 to 5:30 PM. Cecil's voice has been heard on greater Cincinnati radio off and on since 1928, when he joined the staff of WFBE, the fore-runner of WCPO.

So we come to an end of the saga of WZIP, and with it an end to radio as we knew it. It was Brock Brower in his "Lament for Old-time Radio" who said. "I happened to hear, not long ago, a lecture by the young television director, John Frankenheimer. He talked at length about 'the medium', and his remarks, if not always optimistic, were at least highly futuristic. We seemed to be very much in the presence of a soaring comet, some sidereal kin of that pointed star that rotates on Playhouse 90, and during the ensuing question period everybody tried to grab its tail. Everybody, that is, except a brave old lady who rose to put the question: "Some of us like to listen to the radio, young man. Why don't you put on some good radio shows like they used to?" The audience laughed uneasily, and Mr. Frankenheimer scratched his head. "I don't know, madam," he said finally, "but I can sure sympathize with you..."

"I think I can too. Radio, for me, is part of the Lost childhood, and those old-time radio voices-the Easy Aces, pushing Anacin like a doctor's prescription, Jack Armstrong, Baby Snooks, Lorenzo Jones, the inventor, and his wife Belle... Stella Dallas, Captain Midnight, and Sam Spade-have set up an everlasting static in some inner ear. It's the only reception left them nowadays, I frankly doubt if you get them on a transistor set, even if they should be hovering about on some ghostly frequency...they fed on a repudiated substance called ether, and resided in a band on the old disk dial marked Standard Broadcast..."

In 1957 WZIP was sold to Ed Weston and Len Goorian who were formerly with WCPO.

When "Carmen's Corner" left the airplanes in 1957, many cards and letters came in addressed to Mrs. Eilerman. "Sorry your going to leave the station," and "Please let us know where you will be going," and all said, " I enjoyed your programs so much....," "Good Luck to you and may God Bless you." A card from Mrs. Opal Kwozalla said: "Dear Carmen, things are not the same at WZIP and never will be again. Let us know where you go and when, because with all the host of friends you've made, you can't be idle for long." Letters came from far and near, and all had the same message, "We'll miss you on the air." A friend of Carmen's wrote on her birthday:

It is May now in Kentucky
That's when Carmen came to earth,
So I send a word of greeting,
On the day of Carmen's birth.

I don't need to tell who's writing,
Because no one else in town,
Can write such goofy verses,
As your old friend.....

Anon.

A TRUE FRIEND IS A BLESSING

What made us friends in the long ago,
When first we met?
Well, I think I know,
The best in me,
And the best in you,
Hailed each other,
Because they knew,
That always and always,
Since the world began
Our being friends,
Was part of God's plan.

from Clara Scheper

As I write this last bit of history from this log cabin in Boone County, Kentucky, this beautiful fall day in September of 1971 the hush and stillness of the soft air breath a memory of the Old South. The serenity and peacefulness of days gone by. Out front is a modern Dixie Highway built on the site of a wagon trace called the Covington & Lexington Pike. Once in the long ago horse and buggy were the mode of transportation and the fun was in seeing the sights along the road, not as today where we are in such a hurry we only think of our destination. It was a treat to pass familiar land-marks-Highland stock farm- now that was something. The white rows of fencing, the rock barriers in the fields and the gently rolling Kentucky hills and across the evanescent airwaves came the voice of WZIP carrying the memory of Dixie and at sign-off time we heard the soft music of that gentle soul, Stephan Foster..."Weep no more my Lady, weep no more for me...For we'll sing one song, for my Old Kentucky Home...For My Old Kentucky home...far...far...away....

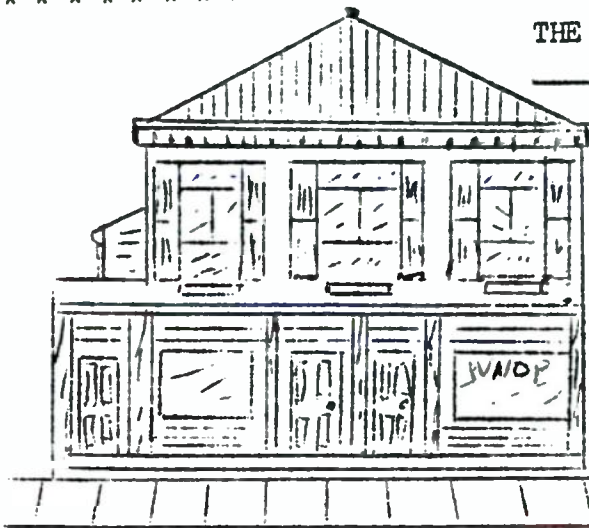
The new owners, Messrs Weston and Goorian said on March 16, 1958, " We are giving rock-and-roll and hillbilly music the old heave-ho. We will program for the majority rather than for the teen-age minority. We will play standard tunes that have proved their popularity by selling a million or more copies, the best from Broadway melodies, sound tracks from Hollywood movies. We will also offer one top tune of the week and premiere a new record we think may become a hit."

Other features will include a family-fun series of embarrassing moments, funny stories, bright sayings, pet peeves and Golden Rule of the day. News and Weather will be offered in five-minute segments every 30-minutes. Dotty Mack will do a series of one-minute fashion spots periodically from 9 AM to 4 PM each day. The Dotty Mack spots may be syndicated to stations in other cities. It was said in

the newspapers: "The new WZIP programming is a far cry from the old and should be most listenable." It was a far cry alright, it moved across the Ohio River to Cincinnati and left Northern Kentucky without a real voice. Not until the year of 1965, when WCLU came on the air, did Covington get another station. Shortly after the new owners had purchased WZIP from the Eilerman ownership it became known that WZIP was again FOR SALE in August of 1958 with an asking price of \$225,000. In 1970 we find WZIP located in the Vernon Manor Hotel on Oak street in Cincinnati, Ohio. It also has an FM outlet called WZIP-FM. In 1971 the FM call letters were changed to WWEZ.

Magee Adams said in his Column: "The new owners of WZIP have made good their promise of a fresh start for the main line FM side of the operation. The former "Country Giant" at 92.5 MHz, has been reincarnated as "WWEZ, easy, all music, all the time." To complete the rebirth, there is stereo of excellent quality, round the clock."

THE "WNOP" STORY-NEWPORT, KENTUCKY



WNOP-606 MONMOUTH
NEWPORT-KENTUCKY

The story of radio station WNOP begins about 1946 in the mind of James Lang of Newport. Plans were made for a new station and with the help of local business people and others, consultant engineers in Washington, D.C. were approached with the idea in mind to find a frequency to use. They found a frequency at 1180 KHz and work commenced. Towers were bought, a transmitter and all the other equipment vital to a radio station was purchased. These were all stored in a garage in Fort Thomas. Call letters were to be WWNL and everything looked in order. Then a series of calamities struck. First a disastrous fire which destroyed all, then the FCC changed all the plans by rescinding the frequency and the

license. Things never looked darker for the new station, but Jim Lang, never daunted, came through, and with a fresh start negotiated with the consultant firm of Page & Company of Washington to find a new frequency. Probably a "first" for radio occurred at this point, as the mathematician who did all the computation necessary for the complicated directional antenna array was a woman. Her name was Virginia Irwin, and her work was so perfect, that when it came time for tests to be made, the math was just a few degrees off.

The new station was issued call letters WNOP and was licensed with a power of 1000-watts and to have a two-tower directional array. The frequency chosen was 740 KHz and the dominant, or key, station was CBL in Toronto, Canada who ran 50,000-watts. The array was set up in such a way as to protect CBL and another station at Olney, Illinois, WVLN. All tests proved the validity of the original math work, and field measurements were made and points, called monitor points, were selected. Program tests were then conducted with programs originating from the studios on the second floor of the John's Building at 606 Monmouth street in downtown Newport, Kentucky.

On August 21, 1948 WNOP went on the air and a few of the personnel who appeared at that time were: First, Dick Nesbit introducing the baseball commissioner, former Kentucky Senator and Governor, A.B.Chandler who welcomed the new station WNOP. Then Dick introduced Judge Bertlesman and he said, "I know that this station will represent all the people of Campbell County." Then commissioner Vince Held gave his best wishes followed by Penny Pruden, who had a program later called "Penny's Pantry", spoke about the advantages of having a

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In the summer of 1949, in July, WNOP had the following programs. It is to be noted that television had commenced rather a full schedule on WLW-TV. There were no TV listings however, only radio.

WNOP-Thursday, July 7, 1949-740 Kc.

3:00 PM...News	4:45 PM...Keyboard Kapers
3:30 "....Sports Matinee	5:00 " ...News
4:00 "....News	5:15 " ...Supper Serenade
4:15 "....Sports Matinee.	6:00 " ...Race Results
4:30 "....Flowers to a good neighbor	8:00 " ...Sign off

WNOP-Friday-July 8, 1949

7:30 AM...Tri-State Almanac	11:00AM....News
8:00 "....News	11:05 "....Paul Cowley
8:30 "....Temple of the air	12:00 PM...Noon-News
Maurice Coers	12:15 "....Date with melody
9:00 "....News	12:30 "....Burt Farber Show
9:05 "....Rec-O-Mania	1:30 "....Sports Matinee
10:15"....Paul Cowley	

On WCPO you would find their boy, Art Jarrett on the air with the opening at Beverly Hills. He was the singing emcee of the new show. In other news on radio we find Bing Crosby trying to make out as a disc jockey. At 10 PM on WCPO you heard "M'sieu Paree"-Maurice Chevalier starring in a sparkling variety program from France "This is Paris." It was Fred Allan, who said he was retiring from radio to let the giveaways fight it out among themselves. It was Life's reporter Joe McCarthy who summed it up by writing "Somebody brought them in because he couldn't work without a bunch of imbeciles laughing at his jokes." He was referring to the studio audience which most radio shows used. Fred Then said: "Now the scripts have to be kept down to the level of a studio audience's intelligence and that's very low. Would anybody with a brain be caught dead in a studio audience? Would anybody with a sense of taste stand in line to watch a half dozen people in business suits and tortoise-shell glasses standing around reading into microphones off pieces of paper?"

TONIGHT'S HIGHLIGHTS-July 7, 1949

WCKY: The commuters' Quartet teams up for "Gay 90's."
 WSAI: 7:30 PM..."Counter spy" and "The Case of the High class Hijacker."
 WKRC: 8:00 PM..."Broadway is My Beat" returns for the summer.
 WSAI: 8:00 PM..."The Eye" moves to a new time to ogle the underworld.
 WCPO: 8:30 PM...Sportsmen's problems are discussed on "Hunting and Fishing Club."
 WKRC: 8:30 PM..."Mr. Keen" snaps "The silver Locket Murder Case."
 WSAI: 8:30 PM..."Moon Mist" is a musical from Canada with songstress Phyllis Marshall.
 WKRC: 9:00 PM..."Escape" bows in with John Russell's exciting tale of "The fourth man."
 WSAI: 9:00 PM..."Paly It Again" brings Gershwin's "Strike up the band."
 WLW: 9:30 PM...Throckmorton Gildersleeve is Dotty Lamour's last guest this season.
 WCPO: 10:00PM...Julius Katchen, American pianist, is Maurice Chevalier's guest.
 WKRC: 10:00PM..."First Nighter" investigates "An Incident on a Park Bench."

In 1949 it was NBC who presented a whole series of repeat broadcasts of outstanding radio dramas. Radio plays were skillfully done and in my opinion found no equal either on the screen or later on TV. It was a real art to keep you on the edge of your chair for a half-hour with suspense.

It was on WNOP in later years that you heard Don McNeill's "Breakfast Club." This was unashamed cornball humor, began in the early 1930's, and was still on radio until 1969. Remember the march around the breakfast table? "Each in his own way-each in his own words" for the morning prayer.

In the summer of 1949 there were two television stations on the air in Cincinnati, WLW and WKRC. WLW-TV aired "Dugout Dope" with Dick Bray-this sponsored by Dodge brothers autos at 2:10 PM each afternoon. This program was followed by "Fans In The Stands" at 2:20 and in July they carried the Reds Vs Chicago at 2:30. WKRC-TV aired River Downs Racing at 4:30 each day. Remember WLW's "Kitchen Klub?" WKRC-TV had "Western Theater at 5:30 and "Telenews" at 9:17 PM and "Morey Amsterdam" on WLW-TV at 10 PM. On WLW you watched "Ernie Lee, and a travelogue at seven o'clock: 8:30 "Stars Over Broadway" and "Corky Robbins. and "Your Show Time."

In order to get your mind tuned to the times here are programs for other stations.

WLW-RADIO 700 Kc.

3:00 PM....."Life Can Be Beautiful"	4:45 PMYoung Widder Brown
3:15 "Ma Perkins	5:00 "When a girl marries
3:30 "Pepper Young	5:15 PM.....Portia faces life
3:45 "Right To Happiness	5:30 "Just Plain Bill
4:00 "Backstage Wife	5:45 "Front Page Farrell
4:15 "Stella Dallas	6:00 "Al Helfer
4:30 "Lorenzo Jones	6:15 "News, Deweese
	7:15 "Builders of destiny
	7:45 "Richard Harkness
	9:00 "Nelson Eddy
	9:30 "Dorothy Lamour
	12:15 Moon River

Remember those "portable" radios? Called portable just because they had a handle on them. Needed two sets of batteries: one for the "A" and another set for the "B" supply. A well-known name brand sold for \$34.95 (less batteries) in 1949. It played on batteries or AC. "All the wonderful, exciting world of radio is at your fingertips anywhere you go with this grand, new portable radio! You get complete entertainment at the flick of a switch...smooth, powerful. Dark maroon plastic case with gold color trimmings, built-in aerial, easy-to-carry handle." (budget terms, of course.)

Waite Hoyt was on WCPO in 1949 and he voiced the game between St. Louis and the Cincinnati Reds on Saturday at 2:30 PM and on Friday at 8:30 PM. WCPO had news every hour on the hour. Headlines on the half-hour. My own pick of programs was Fred Waring on WLW at 10 PM.

WNOP had a news wire installed in 1951 in Cincinnati and the studio would turn the program over to them every hour on the hour. Roy Gilligan did that show and later in the afternoon's he did a record show. I think WNOP must have set some sort of a record for church remotes. At one time there were over twenty (20) different churches on WNOP on Sunday. Some were just store front churches and for the most part they were in downtown Cincinnati. WNOP carried many of the pro football games from Chicago and other cities. It was Elmer Drake who did the engineering work and Dick Nesbitt on the voice. Dick Adams was the first engineer followed by Joe Bortz and myself. In 1970 you will find Charles Hettesheimer and Robert Haas at the transmitter. WNOP always maintained a policy that only the minimum equipment was to be used. This in my opinion was an excellent idea and it sure kept the place from becoming cluttered with electronic gear. It is my opinion that WNOP has the "cleanest" sound on the air today. The studio and transmitter were manufactured by Raytheon. Most everything that was built in America after WW2 was the best workmanship available. I think this is the reason that WNOP's equipment has lasted so long and kept that fine sound. Tune in to 740 any day and hear for yourself.

program just for women. This was followed by the first sponsor of a program over WNOP, Joe Cutler of "Cutler's Auto Sales" who sponsored the sports show at 5:30 PM each day by Jack Baker. Then Lou Moore of the Weingardner Lumber Company mentioned all the beautiful wood paneling on the walls of WNOP's new studios. The attorney, Colonel Walker spoke and welcomed the new radio station to Newport.

WNOP used the services of the United Press to bring market reports and world news into the homes of its listeners. Among the many outstanding shows of a local nature, WNOP acquired a brand new network called "The Liberty Broadcasting Co." This was started by a texan, Gordon McClendon and some of the programs were as follows and taken right off the air by recordings.

"Liberty presents the 'Show Case Of Stars'. This is Tom Malarky. The fastest music ever heard... 'Here Comes The Show Boat'... comedy with 'Jam-up and Honey'... musical fanfare... say Mr. Russ you know I got somethin to tell you...

INTERLOCUTOR: Well, what is it?

JAM UP:.....You know me and my old lady, we been farmin for the last two years ...you know that don't you?

TOM:.....No tenderfoot, I wasn't aware of that...

JAM UP:.....Yes Sir, me and that old woman...we're a couple of dirt farmers ...sure nuff...

TOM:.....Is your wife a dirt farmer too?

JAM UP:.....Ha, that old box-ankled-blimp can dig up more dirt than anybody... I tell you...

TOM:.....Is that so, Sugarfoot? What is it you are trying to tell me?

JAM UP:.....Well Mr. Tom, you know her sister was born and raised up in the city, and she don't know nuthin bout no farm, and last week she come down to visit with us, for the week-end...

TOM:.....Well what happened to her?

JAM UP:.....Well she was wandering around there, down in the barnyard, and all of a sudden we heard her hollerin and yellin and she come arunin up to the house and said, "Come down here quick"... "Come down here quick"...there's a big mess going on down here in the pig yard...and I said, "Girl what you talkin bout?" and she said "You know that great big hog down there?"..."Well, there is a gang of little bitty hogs started runnin that big hog around and round in the barnyard...and they finally done caught him and knocked him down, and now there're eatin all the buttons off his vest! " (laughter...ha)

ANNOUNCER: Now music by the Bayou Brummel's...music up-LASSES TROMBONE fade under for...Songs by the Magnolia Blossom Four..."I Wonder Who's Kissing Her Now"... "I wonder who's looking into her eyes?"...

ANN: Feature specialties..music up and out...

ANN: Yes, it's America's greatest daytime show, "The Liberty Minstrels."

ANN: AMERICA's most comprehensive news coverage comes to you through "LIBERTY" six newscast each day featuring George Campbell and Arthur McArthur. With up-to-the-minute news from Washington, the world's news capitol. "This is Arthur McArthur speaking, this is the voice you will hear reviewing what's happening in such places as : Indo-China, Korea, Germany, England, or Washington, D.C. What happens in these places may well affect each of us. I'll report on world events from Washington, D.C. over the Liberty network and WNOP beginning October second. (1952)

ANN: For international news, Liberty presents America's only fifteen minute stretch, direct from United Nations every day. This show begins just as the session starts, and five features at five minutes each of international news, followed by a ten-minute summary of happenings in the UN today. Including direct quotations from the security council members, and from the floor of the general-assembly. You will hear president of the security council, Malek of Russia, Austin of the United States, and other notables shaping the destiny of the world today. The commentary, the finest in news

analysis, will come from Liberty. Joseph C. Harsch, and guest such as Admiral Alec Zacharis, former head of Naval Intelligence, William Partridge, president of the international society of air-affairs, Senators, Representatives, and cabinet members, you'll hear them all on Liberty, America's most comprehensive news-network.

ANNOUNCER: Hello there, once again this is Tom Malarkey to tell you about America's newest craze, cross-words and sweet-music. It is a show combining the best of America's hit music, and the timeless enjoyment of one of America's oldest habits, crossword puzzles. Here is a show that will give you a large audience for any market..music up and fade for...

ANNOUNCER: Everyday Liberty will offer its' facilities to a great sporting event of the past...with sound effects and all the props that produce reality...Liberty listeners will range through the golden years of sports, you'll hear the famous "long count", the baffling feats of Jim Thorpe, the most thrilling sporting events of all time. Great days in sports will feature the matchless work of Gordon McLendon, his recreation of the past has already become the subject of sports columnist everywhere. For instance, here is a bit of the Dempsey-Gibbons fight of 1923, a fight that broke an American town, it almost cost Jack Dempsey his life at the hands of a gun brandishing cowboy in a ringside seat, while the Blackfeet Indians beat their war-drums in the background..."...a right to the body ...they're in close now...the fighters have changed body punches... a left to the jaw...right to the body, etc"....."and for some reason Gibbons whirling with the blows is surviving..."...crowd noises..

ANNOUNCER: Hoe-Down..."Hello everybody, have you done your daily milkin...Hello, have you come to cup an ear?...this is Uncle Cal Timmy right here... Yes, the down to earth humor of Cal Timmy and another new show "The Disc Jockey's round-table"...this is a brand new show never before attempted in radio, each day for an hour LBS will air a top disc jockey show from a different city in the United States. In fact, this show may well be a good neighbor factor within the U.S. For the first time the dry humor of the midwest will match wit and wisdom with the philosophy and comedy of New England. West coast sharpies from Los Angeles will compare with the Miami platter-spinner...Georgia boys with a drawl so thick as syrup will be there with a spell of music only to be succeeded by the crisp broad humor of an Ohio favorite... colloquialism's of the different areas...and a wealth of music and vogue from the streets of New Orleans to the back streets of New York will provide Liberty listeners with the first real melting pot of all-America ever given to the radio audience...then listen later in the day for the home-spun philosophy which sounds like this:" Here's a letter from Harold Overhunt in Kurt County and he says; 'Dear Cal I am thinking of getting married, what qualities should I look for in a wife?!.. Cal replied: "Well now, I don't know...let me think a minute...etc"...then a woman's program..."A Date With Eloise"...for the ladies each day...from New York...then Liberty brings you Ted Husing and Gordon McClendon, "The Old Scotchman" with a week-end games from coast-to-coast...daily from Hollywood one of America's authorities on the Life's and Times of stardoms great: Omar Garrison, of the Hollywood Mirror, brings you all the news from Filmdoms capitol ...and each Saturday night from the hill-billy capitol of the world... it's the big "D" jamboree...from the heart of Texas...the finest... another Liberty exclusive, Bill Crawford with his football forecast comes to you every friday night over Liberty...interviews...coast-to coast around the nation...basketball...hockey...baseball...for all sports it's Liberty all the way...of course Liberty will cover all national events of importance...that's a mere shadow of Liberty Broadcasting system's new programs upcoming...

On the 21st birthday of radio station WNOP I made an anniversary program which was aired on Sunday at 1:38 in the afternoon. The program was composed of excerpts of all the shows I could remember over the years. I would like to point out a factor which is not fully realized by the listening public when they listen to a particular show. It is the matter of timing. Timing in this case was excruciating to the point of being painful. The following show was from CBS in New York which means that my ending must be precise. Allowing 12 seconds for a legal station break plus a jingle meant that my ending time must be plus or minus two-seconds! The program was taped and different machines play at different speeds which meant I had to allow for a few extra seconds to fill with music. As my tape was mostly speech every word must be heard. It isn't like a music program where you can fade out of whenever you please-every thought must be preserved on my tape. As all my material was taken from previously recorded voices I could not hurry it up nor slow it down. I was bound to the time of the original recording. To compound the problem I must end with a logical climax. It would have been far easier if I had done it live like a disc Jockey show. I would have had full control of it and could end when I pleased. We ended up exactly on time thanks to the excellent board work of Jim Edwards at the studio.

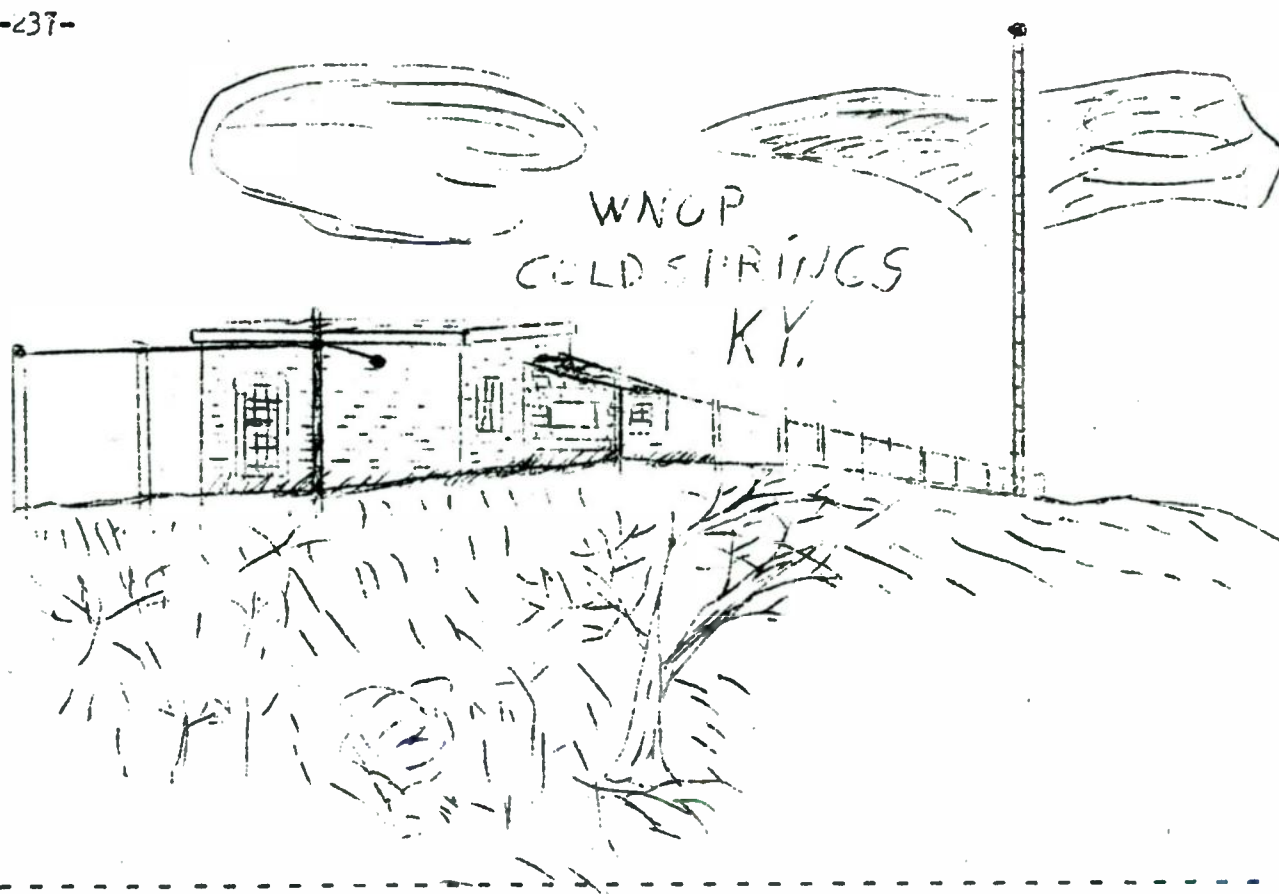
This tape was played back on Sunday at 1:38 PM EST of August 22nd, 1969. It was recorded, produced, narrated, and announced by myself with much help from my wife in helping make the original tape recording. So turn your radio on, and we'll go back to the year 1948.

"Hold it! Hold it! We've got something to say about WNOP. You know what? It's the 21st birthday of WNOP in Newport, Kentucky. Way back in 1948 on August 20th if you were standing on the corner of 6th and Monmouth streets in downtown Newport, Kentucky, you would have heard the sound of the Calliope coming from the river boat "Island Queen" anchored just across the Ohio River in Cincinnati... "Oh I wish I was in the land of Dixie...look away...look away...look away, dixie-land..."

Things certainly changed the next day at 12:10 PM just past noontime that day of August 21st, 1948, for on that day a new voice was added to the airwaves. The next morning brought the first full day's operation and the 1st sign-on. "Let's turn on" a voice said turn on they did with "Good morning, this is WNOP signing on at 6:30 AM EST. The Federal Communications Commission in Washington, D.C., has granted WNOP and the Tri-City Broadcasting Company the privilege of entertaining its' listeners with as broad a variety of programs possible during the daylight hours of its' operation. With a power of 1000-watts, and on a frequency of 740 kilocycles. Our studios are located at 606 Monmouth street, Newport, Kentucky, and with our transmitter in Coldsprings, Kentucky. GOOD MORNING, this is Gary Stephenson back for another shot at this thing...Thusly, WNOP WAS BORN. A lusty voice began an illustrious career spanning 21-years this August of 1969. With signals emanating from a 33-acre section of land in the Coldsprings -Highland Heights area, and with a signal so strong that a directional antennae system had to be set-up to protect stations as far away as Canada and Olney, Illinois.

What were things like in the year 1948? Well, for one thing, Harry Truman was elected President, and the following January he said this over the radio: "I, Harry S. Truman, do solemnly swear..." Television had not yet started in the greater Cincinnati area when WNOP began its operation. Twenty-one years later, to the very minute, from a remote broadcast high atop the Gywnne Building in downtown Cincinnati, came the voices of Oscar Treadwell and Walt Harrell singing, "Happy birthday...happy birthday to you!..and Oscar said "WNOP has come of age."

Then the voice of James Lang was heard: "This is James Lang, President of the Tri-City broadcasting company and I was just sitting here in my office remembering some of the past. With regard to some of the people that were on this station. I can still see it in my mind as I look back and try to pick up the



picture. I can remember very well, Happy Chandler was Governor at that time and it was he who opened our station. There were a number of people that I thought were outstanding who had been associated with this station. Bert Farber, Romona and Al Helper, Paul Cowley, Larry Vincent, and at one time we were part of the Liberty Broadcasting System. We've carried baseball and a multitude of different types of programs on this station. One time we were programming all hill-billy shows, then to POP music, DIXIELAND, and now this modern jazz as we call it today. I will say that we have tried hard to please our listening audience, we've sought advise, we've sought their feelings in things they might like, and I think we have done a reasonable good job in that respect."

Then the telephone rang, and the pleasant voice of Polly Lang came over the mike: "WNOP"--"Yes I remember some of the names of WNOP's early broadcasts. Doug Nunn, Paul Cowley, Bob Stewart, Jack Baker, Bert Farber, Rosemary Martin, and 'Sunny Brookes' doing 'Flowers to a good neighbor', Dick Nesbitt, Jimmy Skinner, Dale Stevens and Jack Clemens, Leo Underhill, Jim Edwards, Tommy Lee, Ray Scott, and I recall Oscar Treadwell. Oscar started at Reading, Pa., over WEEU doing commercials also for WCAU, WDAS, and WKDN. On WNOP he did contemporary poetry reading on a show called 'Jazz And Poetry.' Polly said: "He used material of Carl Sandberg and ranged to the more modern style of Stan Ginsberg and his music ranged from 'Mezz' to 'Pres' and to Pharaoh Sanders on tenor sax and from Bump to Monk. Oscar also had another show called 'Eclectic Stop Sign(spelling correct).

Later we heard Gary Stephenson, Charlton Wallace, Charlotte Richter, Roy Gilligan, George Palmer, and Jimmy Williams. For many years on WNOP was a program called "Hall Of The Masters." This show featured only classical music and had high rating over a period of almost twenty years--it was never sponsored. This show ran a full hour from 1:00 PM till 2:00 PM. It opened with music...fade under for announcer: "Welcome to the 2,037th broadcast of Hall Of The Masters...music up... today we feature Eileen Farrell...

Each morning at 9:30 you could hear the Jimmy Skinner show from a remote broadcast from his store on 5th street in Cincinnati: "Thank you, and a very pleasant good morning to you all, and this is Jimmy speaking and we will around, country style, on the country leader, WNOP, until 10:00...Jimmy would always close

his show with "Thank You so much for being with us, stayed tuned and be back tomorrow. This is Jimmy saying-If you want to know life in its' beauty, live it as nature intended, there's no substitute for happiness.! Many movie people and a host from the theatre made their start here at WNOP. Brenda Lee made her first appearance on the Dick Pike show and went on to recording stardom with Tennessee Ernie Ford.

One of the earliest programs was called "SOLILOQUY"...in 1949 you would have heard: "This is Soliloquy. Beautiful sounds of better music, congenial happy music, in comfortable tempos...cheerful, tongue in cheek, with an occasional sound of simple sadness...from musicians who enjoy working together!...music up... then the closing:" These have been the beautiful sounds of better music...a variety of approaches and textures, music as warm and friendly as the lights that one-by-one wink on across the great city. This has been Soliloquy, the final melodic attractions with which we end our music day..." then "The music was recorded"...music up and end.

"This is Gary Stephenson telling you that WNOP has been known in the past as 'The Voice Of Hospitality', 'Skid Row Radio,'; COLOR RADIO;MAKE BELIEVE RADIO: RADIO FREE NEWPORT: NEOTERIC RADIO: ECLECTIC WNOP: W-ho N-eeds O-ur P-robblems: the initials, WNOP, standing for: We're Near Ohio Property. I like working for WNOP because they are the only station that lets me say 'bullfeathers.'"

A religious program which has been on since the beginning of WNOP is the Asbury Tabernacle. At 11 AM each Sunday you will hear the announcer say "WE take you now to the Asbury Tabernacle at 11 East McMillan street in Cincinnati, Ohio, for services conducted by the Rev. Merrill R. Vaughn"...Then;"It's Bible time as the Berean Bible society of Chicago presents its president, Pastor Cornelius Stamm in a series of messages that will help you understand and enjoy the Bible"... "This is Kentucky Calling. A program designed to keep you, the citizens of Kentucky, informed about your state government in action"... "This is the Frank and Ernest program...we appreciate the privilege of visiting with you to talk over the good things found in the word of GOD"...And Tom McCarthy, one of the top newsmen in the Cincinnati area had an early morning program on WNOP from his farm called 'Obanion's Green. Remember Ty Williams and the evening that a fire raged next door to WNOP? He couldn't breath for all the smoke...Ray Scott who signed on with a country music show and who later had a program on WSM in Nashville...The Jack Clements show from the "Living Room" and later in the "Caucus Room." Dale Stevens from the "Kasbah".... "This is Leo Underhill, Charlie Taft is with me each morning at 8:35, join us, but hurry we are not long here..." "This is Gary Stephenson, and today is the day of the big race, The Kentucky Derby. WNOP's coverage of the derby begins this afternoon!..then CBS announcer broke in with: "The scene is set at Churchill Downs at Louisville. The weather is good, the horses are ready, the city is jammed with visitors, and in a word ' The joint is jumping.' Then the race;"THEY HEAD FOR HOME...etc. The voice of Jim Edwards; "This is Jim Edwards reporting with a complete summary of thoroughbred race results from across the country."

"This is Oscar Treadwell with a cordial invitation for you to join me any weekend-saturday 2 to 5, and Sunday 2 to 5"...WNOP carried the programs of Mutual, ABC. and now CBS "Where what you want to hear comes first." And a new broadcasting system begun by Gordon McLendon of Texas, called the Liberty Broadcasting system. This occurred back in the early days of WNOP. This station was chosen as an outlet for this system for the Cincinnati area. Remember the old time minstrel show? The baseball games, and all those re-created sports affairs? The old-time boxing matches, all re-staged with crowd noises and all...it was reported that a truck driver ran off the road when he was listening to a fight which had happened many years ago, he thought his hearing had gone bad! Yep, this was truly "Make Believe Radio." A program that was not make-believe: was the one that told of the first manned landing on the moon, and it came over the facilities of WNOP and it sounded like this: "A landing unofficially set at 17 minutes 42 seconds past the hour of four, Eastern Standard Time, Sunday, July 20th, 1969."

The the controllers voice " We copy you down Eagle...Houston, this is Tranquility Bay. THE EAGLE HAS LANDED! ...the voice from Houston again "Roger Eagle, we copy you fine...you got a bunch of guys about to turn blue...we're breathing again, thanks a lot."

A person who was highly influential, and who gave moral support to WNOP in its' formative years, was the Rev. Maurice Coers of the Immanuel Baptist Church at 20th and Greenup streets in Covington. He was a former member of the Indiana State legislature, and perhaps remembered best in this Northern Kentucky area for his work in creating the "Garden Of Hope" in Covington. This was on a hillside overlooking the new I-75 highway. The garden was complete with authentic flowers, wood, stone, and rocks, from the Shores of the Sea of Galilee and the Palestine area. It had the carpenter shop, the garden of Gethsamane, all re-created. During the Christmas season each year he would hire an airplane and install a huge public address system and play carols from the sky. His "Chapel of Dreams," later to be on television, and his sign-off program on WNOP called "The Temple of Dreams." His wife, Mrs. Vernice Coers did the program many times when Maurice was not available for the show. It was a relaxed type of program designed for late afternoon listening. I'll never forget the evening that Maurice had asked me to stop by his church and look at an amplifier. I was waiting for him just a few minutes before his program was to start. He didn't make that program. He had died just a few minutes before I had arrived.

In 1970 you can hear such voices as Ray Scott, Leo Underhill, Oscar Treadwell, with his Jazz & Poetry, and his Eclectic Stop Sign. CBS shows are aired until 1970 when CBS switched to WCKY and WNOP obtained ABC.

My own personal experience in working for WNOP as an engineer may cast some light on what it is actually like working in broadcasting. I started to work for WNOP shortly after they went on the air. I had been working at WZIP over in Covington. I heard WNOP come on the air by listening to a radio while I was at the WZIP transmitter doing some work. A few weeks after that I went to work for WNOP. My emotions on seeing the small building, hardly bigger than a tool shed, sitting out in a large field defies my vocabulary. I drove through a plowed field, luckily on a dry day, and there I was. In some respects, I suppose, it seemed peaceful, serene, and a long way from the helter-skelter life that most people lead. Well, my first day to open the transmitter was on a Sunday. I lived in Covington and this meant a trip over the Licking River into another county. In Covington I was at river level, almost, and when I got into Campbell County I still was. But to get to WNOP at Coldsprings you had to go up and up a narrow road out through Wilder and wind up a hill called John's Hill Road. In daylight this would not be a bad ride at all, but, in the wee hours before daybreak it was something else. To compound this, a heavy fog had set up at high elevations. This is a peculiarity of the Ohio River valley. You find fog at different elevations at different times of the day or night. It is more noticeable here because anywhere you go you are constantly changing elevations in the greater Cincinnati area. Be that as it may, as I go about midway up the hill I found I simply could not see the road at all. I had allowed myself ample time to make the trip, or so I thought, so I decided to back down the hill and go around the Alexander Pike, or route 27. I went down the hill backwards. I knew all the time that the right hand side of the road dropped straight down for several hundred feet so you can imagine my thoughts as I gingerly backed down. I thought every inch of the way I was going to roll off that road right into the Licking river. Before I had gotten all the way down the fog lifted at that lower elevation and I made my way to route 27. I have seven more miles to go yet. I was Okay until I reached the top of 27 at Fort Thomas when I again hit the fog. By leaning out the car door I could follow the curb, but I didn't know where I was at any time. I ended up 10-miles past WNOP and by the time I got there I was a half-hour late! I turned the transmitter on and closed the shed door and sat in solitude surrounded by thick fog until the sun burned a hole through the fog and it became clear. I might as well have been on an island because I knew there couldn't be another soul within miles of me in clear weather and the fog cut even that world from me.

There wasn't a road back to the transmitter of WNOP at first, so we drove on dry days through the field which was almost a quarter of a mile long. On rainy days we had to park on a small country lane and walk in and ended up covered with mud. No one would be around you all day long so you soon learned to live with yourself. Some days during the long summer months each day consisted of 15 hours on the air and one person would stand this entire watch. So you can see it is no job for a person who likes people around him all the time. If you drove back there when the ground was dry and as the day wore on it turned to rain, you can believe me you were stuck, and I mean stuck. It was impossible to get out. Many a time I had to put chains on to get through the mud only to have to take them off when I reached the road. Mud all over the place; stuck to your hands till you thought they would freeze in the cold winter months. Trying to get those chains unbuckled so you could navigate on a normal road.

Many of the radio transmitter across the country are situated on mountains and the same conditions as I described prevail so I guess you could call this an occupational hazard. In later years we moved farther out the Dixie highway to Florence and this now meant a 26 mile drive in the early morning hours. I had to keep a constant eye on the weather conditions to be sure I could make it by morning. When you have to be at a certain place at a certain time, and you know that the whole radio station is depending upon on your being there, it puts quite a burden upon a person. At 5:30 in the AM, especially on weekends, the snow plows have not done their job as yet. In fact, most all the road conditions are geared for the monday thru friday-nine to five- crowd. All the rest of us have to suffer through lack of service on Saturday and particularly on early Sunday mornings. If snow began falling early in the evening I had better get set to leave almost immediately in order to assure that I would be there at sign on. My wife would fix enough food to last me through a long day by myself.

One night it was so bad that my wife decided to go with me. By the time we arrived at Coldsprings the snow was very deep. We parked the car at the edge of the property and were faced with a half-mile walk through the field. On a sunshiny day it would be a pleasant jaunt, but, believe me in a howling blizzard it is something else. The drifts were so bad we used the fence as a ladder to pull ourselves through four-foot snow drifts. The wind cutting into your face until you thought you couldn't stand it one more minute. Finally arriving at the door and then finding that your fingers wouldn't move to get the key in the door! Almost in a panic now, but you finally made it. You lean back against the wall to try and catch your breath, and get warm only to look through a door to another small room-and see a horse. This large black horse was also staring at me! I had visions of this monster making a wreck of the whole building and in the process tipping over the kerosene heating stove. What to do? We can't make that trip back.

At this juncture it would be difficult to tell what went on in a person's mind. I'm sure there is nothing in the FCC rules & regs to cope with this situation. Your first tendency is to run outside, but you remember how impossible it was to get here. You now know that you can't make that half mile trip back out to the road. The snow is almost four feet deep in the road, with drifts even higher. Your in a real panic because you know if that horse gets loose he could knock over the kerosene heater and the whole works go up in flames. Luckily he is still on the other side of the flimsy door between the transmitter room and the storage room. How long will he stay there? Neither my wife nor myself got any sleep that night, I can tell you. When the National Anthem was played at sign on the next morning little did the listeners know that I felt like Nelson Eddy sitting astride his horse in the Canadian Royal Mounted Police!

A person at a transmitter of any radio broadcasting station learns early to live within himself. It is a lonely life, but one you can be accustomed to. Reading meters at the base of an antenna in mid-winter is a real chore. The walk through the fields to reach the antenna with winds howling across a hilltop

that make your eyes close and your forehead aches with a sharp pain. This is a part of radio that few people realize. Listeners will never know this phase of entertainment broadcasting. It is just as well to not dwell on these hardships but I do want to make the point that you'll never find a more dedicated group of people like the radio broadcast engineers.

When ice and snow short out the antenna and make the whole operation shaky puts an additional burden upon the poor transmitter engineer. Power outages, momentary lightning hits, and even cattle knocking wires down are all part of the job. Strange as it may seem the summer months of June and July are the most dangerous. It is the perfect sunny days and not the thunderstorms that present the greatest hazard. The soft summer breezes blowing has danger in it too. Seems the breezes carry dirt and dust particles and this endless stream bombards the antenna structure itself. This deposits small charges of electricity charges on the tower which are cumulative and finally there is an explosive discharge that cause you to hit the ceiling! During a storm you expect this and often as not you do get a direct hit and it disintegrates the whole tuning unit into a mass of molten copper and steel. It is hard to realize that this same destruction can occur on a normal day through the summer, but it does. It is much like your own experience when you rub a comb through your hair charging the comb. When you then hold the comb near a metal object you can see a spark jump across. You also experience a small amount of this when sliding across an auto seat and find a spark jumping from your finger tips to a door handle, or when you walk across a certain type of rug and the same thing happens. These are small examples and you can imagine what occurs on a large radio tower. It is explosive to say the least.

When some unforeseen thing happens to cause a transmitter to go off the air you suddenly find yourself in a daze. Knowing all the time you must find the trouble quickly as program are being lost all the while you are off the air. This ability to find the problem in a hurry distinguishes the men from the boys. It is a real feat to work under such stress with the phone ringing off the hook, and everybody wanting to know "When will we be back on the air?" Of course, many hours of preventive maintenance are performed by all radio engineers but this doesn't preclude the thing called "Murphy's Law" which states in part: "Anything can happen, and it usually does." What this means in practical terms is that the best laid plans go awry. Tubes that suddenly stop working with no apparent reason, resistors that blow up in your face, condensers that short out, transformers that quit transforming, all with no reason do present a real challenge to the engineer. Modern day radio broadcasting owes much to both the studio and the transmitter engineers of this country. This is a fact that never did get recognition because people only hear the announcer and never realize that there are many persons working behind the scenes to keep radio going. I would like to put the emphasis where it rightly belongs; on the writers, program directors, continuity personnel, and the engineers, for without them and thousands of other along the line there would be no radio nor television in your home.

In 1970 we find that WNOP has the unique distinction of the only radio station in the greater Cincinnati area that is still owned by the original owners, Jim and Annie Lang.

From the preceding paragraphs we turn now to one in a lighter vein. If you've ever listened to WNOP's EDITORIALS as given by Kennybunk Tadwell, you then know how WNOP became known as a real Fun Station to listen to. His station promo for a remote broadcast would sound like this on a typical day: "This is Kennybunk Tadwell taking time off from the 46th "Images" Polo tournament to invite you to join Leo Underhill doing something called "Underhill at Large" from our offices high atop the Gynne building in Cincinnati. There are several things involved in this noontime broadcast; "Chapter Thirteen" in Mt. Adams, and a dress shop called "Paraphernalia" and almost forgot they are out in Kenwood Mall, and an auto agency on Reading Road. I sincerely hope you find it in your heart to forgive these people for what they have done."

FM AND TELEVISION IN CINCINNATI

This anthology of radio-communications book was created and compiled primarily as a documentary on radio in early Cincinnati, and has dealt with the five earliest radio stations in the main. These have all been AM type radio, and it is felt that there should be other books on the later broadcasting media. FM and TV came about after 1945 so that their history does not fit in the contours of this book. They can be better told separately.

FM, stereo, and multiplexing, along with television also have long histories of evolution. Television history is actually before frequency modulation.

HERE ARE THE TELEVISION AND FM STATIONS FOR CINCINNATI

WLW-t.....Channel 5-NBC
WCPO-TV...Channel 9-ABC
WKRC-TV...Channel 12-CBS

WCET.....Channel 48-ETV
WXIX.....Channel 19 (XIX)
Covington Education...54 ETV

FM STATIONS IN THE CINCINNATI AREA

WAEF-98.5-stereo
WAKW-93.3 Pillar of Fire
WCXL-105.1 formerly WCPO
WGUC-90.9 U.C. Educational
WSAI-94.1
WKRC-101.9
WZIP(WWEZ)-92.5
WCNW-94.9 Fairfield, O.
WMUB-88.5 Oxford, Ohio
WPFB-105.9 Middletown, Ohio
WHKK 100.9 Erlanger, Ky.

WCNE-FM -88.7
WRCJ-89.3 Reading, Ohio
WVXU 91.7 Xavier University
WQMS 96.5 Hamilton, Ohio
WEBN 102.7 Cincinnati, Ohio
WLYK 107.1 Milford, Ohio
WHOH 103.6 Hamilton, Ohio
WOXR- 97.7

AM RADIO STATION IN CINCINNATI AREA

WKRC-550 Kc
WLW -700 "
WNOP-740 "
WPFB-910 "
WZIP-1050 "
WUBE-1230 "

WCLU-1320 Kc
WSAI-1360 "
WMOH-1450 "
WCIN-1480 "
WCKY-1530 "
WCNW-1560 "

WPFB-MIDDLETOWN-OHIO 910 KILOCYCLES

One of the outstanding radio stations in the greater Cincinnati area is WPFB, Middletown, Ohio. Owned and operated by Paul F. Braden, who was the former chief engineer of WING in Dayton, Ohio. It was he who conceived the idea that Middletown was the only area that was not really served by any radio station. A look at a map will disclose quite a void between Dayton and Cincinnati.

Of course all the radio stations can be heard in Middletown, but that isn't the point. Being heard is one thing, but to program to that particular area alone is something else. Suppose, for example, that there was only one radio station in the whole United States, and again for example, it tried to program to the whole U.S. This is an impossible situation. Such is the case when a Cincinnati station, no matter how powerful, tries to become involved in the problems of another city. It just can't be done. Thus, Paul Braden saw as an opportunity the need to build a radio station to serve only Middletown. He and Larry Beckwith built the station from the ground up, and with the studios and transmitter all in one old farm building. It first went on the air on September 1st of 1947. It began with only 100-watts of power, but from the start the citizens of Middletown were aware that this station was serving their needs for a local voice. They petitioned the FCC to allow WPFB to run 1000-watts in the daytime and to use 100-watts nighttime.

Main offices were upstairs of this two-story farm home which was re-modeled to fit the needs of the radio station. There were two studios on the first floor on either side of the transmitter room which also functioned as the control room and housed all the tape and disc recording equipment. The transmitter was a composite job, which is a polite name for being home-built. It was rugged and it proved to be durable, as it lasted for many years. The studio console was also home-built and had an unusual feature in that the meter used to gauge the audio volume level was not connected in the normal manner. Most consoles have what is known as a "Volume-Unit-Meter" which has a needle that swings more to the right hand side the louder a given sound is. Not so with WPFB. They used a limiting amplifier and the characteristics of this was that the meter would indicate how much compression was being utilized at any particular moment. To my way of thinking this was ideal. WPFB had many novel features of construction of the electronic equipment and all proved to be excellent too.

I recall working there in the early days of their operation and remembering all the remotes they did. For one thing WPFB covered the basketball games of Middletown High School as no other station ever did before. I traveled all over Ohio following the games and doing the engineering for the audio when Dan Humphreys and Warren Johnson announced the games. Places like; Xenia, Springfield, Dayton Coliseum, Cincinnati Gardens, and all the other cities where Middletown played basketball. The days of Jerry Lucas in his high school days and later to be one of the Cincinnati Royals. Remotes from College Corner, Newspaper offices, Armco Steel Plant, and other civic offices for daily news.

I recall many high school band remotes from Lebanon in the Masonic Hall near the Golden Lamb. One rainy afternoon Larry and I installed a special rhombic antenna system in the field nearby oriented on England. The purpose was to pick up a light-heavyweight fight in England and re-broadcast it for the Middletown listeners. It went off fine. WPFB also got permission to pickup baseball games and rebroadcast them in the same manner.

I think my greatest enjoyment was in going to the country fairs with WPFB remote equipment. There's something about a fair that is like no other show. The atmosphere, the sawdust, all the farm equipment, livestock and poultry exhibits, the races, horses, and you name it and it is at a county fair. Elmer Hinkle, who had been on radio for many years as the "Hink" of the twosome of "Hink & Dink" back in WLW early days, had his own tent and troupe of performers at these fairs and presented different acts under the big top. He used a stage and even had his own lighting system. His daughter played the piano and his son played drums.

In traveling about through the summertime to do these remotes it was quite a chore to make sure the program was fed back to the studios of WPFB. There are several hundred different telephone systems throughout Ohio and I had to check back to see that they had the show Okay. As I hung on the line, I could hear each operator call the next until at last it reached the station. We would put these shows on for fifteen minutes of each daylight hour. Of course I had to rig up a system so that I could hear the station and when I heard "We take you now to the Preble County Fair with Elmer Hinkle" I knew we were on the air. I usually kept the mike open for a few seconds before I gave the cue to Elmer so that I could hear the crowd noise come back over the air. When I heard the crowd on the radio I knew we had it made then. One time I connected the remote amplifier to the telephone line and the meter went clear over to the right hand side, against the pin! What in the world caused this? I asked myself. Well, somehow the telephone company had accidentally put 150-volts of DC on the line and this caused the meter to register it, instead of the normal audio signals. I hurriedly made a trip to the nearest radio store to purchase a couple of capacitors which remedied the problem. Another time one of the generators used on a merry-go-round caused a severe hum on the program. I took some tinfoil from a cigarette package and wrapped it around the offending wires, and we were back in business. Many of the telephone

wires used for broadcast at these fairs were of a temporary nature. So temporary in fact, that they were just haywired in the lofts of farm buildings, or where ever they could get an elevation sufficient to get over the heads of the people, they'd use anything available. As you might know, we had trouble many times because someone would accidentally tear the wires down. I would hear the show go dead on the radio and then would start a frantic search for the broken wire. Many times it would be way up in the loft of a building so I would have to hunt up a ladder and trace the wire out. Remotes of this nature certainly were not easy at all. People tripping over microphones, cords broken, electric that suddenly went off, watches that never kept the right time, and invariably someone would be on the show and start singing, or some other act, without telling me they were going to, and I would have to make like an acrobat to hurriedly get a mike in front of them. The worst situation possible was to have an act, such as a juggling act, baton twirler, or tap-dancer, which were designed for visible audiences and not for radio. How do you use a microphone to pick up a baton twirler? Such was radio even as late in years as 1949. But I enjoyed it. Today it is nothing at all, just a disc jockey sitting in front of a control console and spinning records and reading "one liners" between records. The personnel changes so fast nowadays that it is even difficult to tell exactly who made the station break fifteen minutes ago! At one station recently (1970) I saw ten announcers come and go in the course of only one day. They are lined up back-to-back waiting for a chance to get "on mike" and some last as long as a half an hour! Radio was something in the old days, and I think there should be some lament for it, without tears, for a way of life and the passing of an era.

Today in 1970 WPFB has an FM station with stereo multiplexing and two separate storecasting frequencies. These programs are for grocery stores etc. They use 42 Kilocycles for Krogers, and 67 Kc for background music.

In 1970 Bill Hart is the station manager with Paul F. Braden as the president and owner of WPFB. One of the greatest small stations in the world, in my opinion, listen in to the middle of the dial some day at 910 Kc and find out for yourself. You will find Stan Reed as program director, O.T. Dresback as the vice president, Bob Cordray in the news department, and Tom Hogan in the program end of WPFB. Joseph Lemoine as Vice-President of sales, Cal Williams as chief engineer of all WPFB operations, and Leon Turner and other in the engineering department. The FM programs country music from 6 AM till noon when stereo takes over WPFB. Their FM and AM operations consists of 22-hours of live programs plus all the others. This is one of the truly great radio stations in the country.

WMOH- HAMILTON, OHIO 1450 KILOCYCLES-250-watts

owned by John Slade-Fort Hamilton broadcasting company.

WMOH, Hamilton, Ohio, went on the air in August of 1944. But, the real story of radio in Hamilton goes far back into history. Names like the Doran Brothers and John Slade come to mind from the past of around 1920. WMOH had some problems in getting on the air due to the war (1941-1945) and government controls it was very difficult, to say the least, to get this station on the air. For one thing, at the transmitter site on state route #4 in Hamilton there was a mansion which belonged to the Lee Parish Family and which had a woodshed adjoining it. It was this woodshed building that Mr. John Slade wished to use for his ne transmitter. Due to all types of shortages; wood, metal, gasoline, etc., the government would only allow \$240 to rebuild this shed and wouldn't allow anything to build a new building. To get a steel tower was another thing, and all this compounded by the fact that gasoline was so tightly rationed that travel to find materials was restricted. Copper for the ground radials of the antenna system was obtained by unwinding old power transformers to get the copper wire. Despite these hardships, John Slade did make it and got on the air on August 15th of 1944. John had requested the call-letters of WLTN to rhyme with the word Hamilton. So when you tune to this fine station of WMOH remember to listen for their slogan, "Shop wisely, and be thrifty, and listen to fourteen fifty."

On November 13, 1953 it was Charlton Wallace who said in his column: "Station WCIN was off to a flying start when it began broadcasting October 26th over 1480 kilocycles because its staff was composed of experienced personalities of the radio world. Most of the programs offer music ranging from spiritual to progressive jazz, but there are also specialized programs such as "The Job Mart," telling of opportunities for employment, and a salute to "Today's Good Neighbor." News is broadcast every hour on the hour over this dawn-to dusk station."

"In announcing the plans for WCIN, owner-manager Robert W. Rounsaville, whose home is Atlanta, Georgia, stated 'To my knowledge WCIN is the first radio station in the United States to be built from the ground up with the express purpose of programming exclusively for the entertainment, education and information of the American Negro.'"

"Introducing you to the six top personalities of WCIN with Larry Dean as program director and who specializes in spinning rhythm & Blues numbers as a disc jockey, and is also a newscaster. His real name is Lawrence Dean Falukner. Larry started as a continuity writer and announcer at WERD in Atlanta and progressed to program director at WSOK in Nashville. Later he became the stellar disc jockey for WLOU in Louisville. His Dee Jay program on WCIN is entitled "Larry Leaps In" and he also does "Man On The Street" and "Sundown."

"George White is director of continuity and come to Cincy from WSOK in Nashville. A native of Memphis, George is an alumnus of LeMoyne College and the Medill school of journalism in Chicago where he worked 2-years on the editorial staff of the Chicago Defender, resigning that job to join WSOK. White does spot announcements and is the deejay of "Swing Caravan," a rhythm & Blues show, and "Melody Tyme."

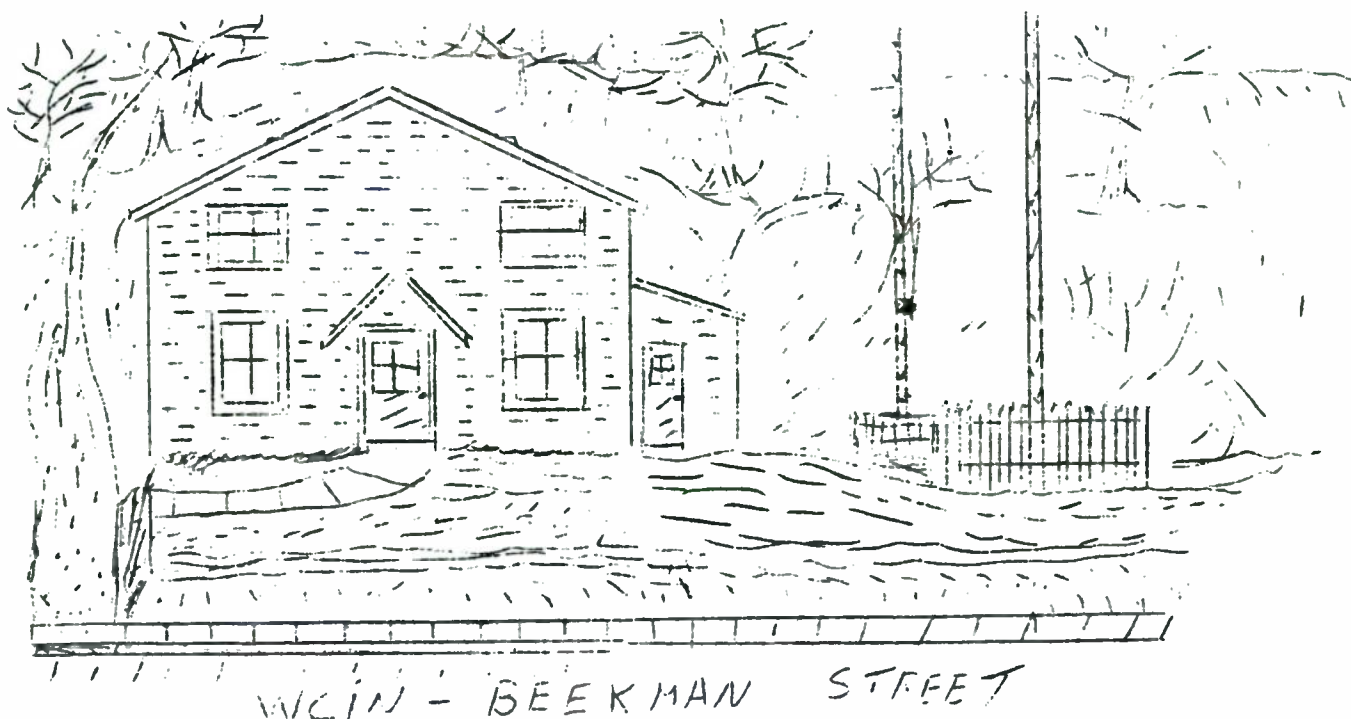
"Charles (Chuck) Gordon is director of religious programming in addition to live programs on Sundays. Chuck is the disc jockey of "Gospel Melodies" and "The Southland Calling," plus "The Old Ship of Zion." He is an alumnus of Oberlin college and Fisk University prior to joining WCIN, Gordon worked at WSOK, WGIV, in Charlotte, N.C., and WEGO in Concord, N.J. Ohio

"Odessa Monroe director of women's programming is a native of Cincinnati. The mother of a 3-year old son, Mrs. Monroe is a former fashion model, and has been featured in the Cincinnati Leader. Her programs are "Job-Mart," and "A Woman Speaks," on which she tells of recipes, fashions, and other matters interesting to women."

"Hank Morgan is chief announcer and sports director. A real veteran, he has worked at stations in Jacksonville, Pensacola, Orlando, and Miami, Florida. For eight years he called the play-by-play for football games and basketball games in the southern conference. On "Hank's Pranks" Morgan used many sound effects."

"Bugs Scruggs specializes in blues, boogie, bop and pop music on his 'Bugs Scruggs Show.' His previous experience has been at WDXB and WMFS in Chattanooga where he also played dramatic roles in several radio dramas, and at WSOK. Bugs also doubled in brass and was a successful salesman at the Tennessee station."

My own recollection of WCIN began about 1950 when the New York Tech School did all the spade work to originate this station. Names like Jule Kleinman and Cedric Addams come to mind. It was they who did the math work and the necessary paper work to get the license. This equipment and papers sat dormant for almost two years until Robert Rounsaville bought the license from New York Tech. After the purchase I met one of the great engineers in radio, Paul Cram. It was he who actually built the station on Beekman street in an old farm house.



I was working at WNOP at the time and came over to see the new station. When I arrived it was to find an old tumble-down frame building surrounded with tangled underbrush and plant growth of every description. There had been an elderly woman who was living there and it seemed she had, in years gone by, run a nursery or landscape business at this location. This must have been many years ago because the place was run down. I think there must have been about one acre of ground connected with the building. The first thing Paul did was to hire a bulldozer and scrape the ground free of growth so we could find the house. Next carpenters were called in and they put a new floor in and began almost 3-months of work to remodel the house. During this interval Paul had me lay each section of the towers on saw-horses and paint them. He also had me install lightning rods which were fabricated in a local machine shop on the top section of each of the two towers. They were sharpened to a fine point at the top. We ran 120 ground radials out and silver-soldered all to a strip of 3-inch copper around each tower. This took almost two weeks and we ran the coax line and sample wires underground at this time.

When WCIN went on the air they were a daytime station running 1000-watts. This was a regional channel and later in 1966 they built new studios on Glendora avenue in Avondale and went full time with 5000-watts daytime and 1000-watts nighttime. In 1970 we find the chief engineer is Carl Dettmar and Elton Chick as the manager. It is a brand new building situated on a hillside of what was formerly a dairy business.

WCLU-1320 KHz-Covington, Kentucky-500-watts daytime

In 1965 radio "CLU", that's WCLU 1320 KHz, 500-watts directional went on the air and they too have a regular signon time of 6:00 AM which other daytime stations don't possess. Their sign-off is geared to daytime operation however. The station is located in Latonia just off of Taylormill Pike one block south of Rittie's Corner on a ten acre plot of land that was purchased from the city of Covington. This station is known as "Kenton Broadcasters," and is owned by Irv Swartz. In this year of 1970 it has maintained a "Single Image" profile for the past five years. That is, it only programs one style of music, Country Music, and programs to Northern Kentucky. Irv has several innovations to his credit. He has worked out a computerized system of selecting the type of music to play at a given time of day. It has had write-ups in trade papers in New York. The studios are well planned and functional and simple to operate.

WCNW-formerly WFOL-1560 KHz and 94.9 MHz (Bronco Radio)

September of 1962 saw WFOL-FM go on the air from the city of Fairfield, Ohio. This station is owned by Walter L. Follmer who is president and with Walter L. Follmer, Jr., as the general manager. Niel Puckley is the commercial manager and Ted Richardson as the program director.

WFOL was housed in a former dwelling on state route 4 just south of Fairfield, Ohio. Operated on a frequency of 94.9 MHz and with a power of 30,000-watts ERP. They were at that time operating full-time FM stereo.

Programming of WFOL included a Sun-Up serenade from 6:00 till 9:00 AM which was designed for the busy early morning mood of Southern Ohio. This mood was matched with a carefully balanced and varied tempos and familiar and well-loved light classical, standard, and show music selections. From 9:00 till noon you listened to a sparkling variety of the world's best loved music beautifully arranged and planned to provide accompaniment to everyday activities. From 12:15 till 2:00 PM the Mid-Day melody program broadcast the relaxing blended melodies to match the atmosphere of mid-day. At 2:00 and continuing until 5:00 PM a transition between work and play is reflected in the vocal, pop concert, and show music programmed during these hours. For the cocktail and dinner hours of 5:00-9:00 PM were instrumental and vocal favorites planned as a pleasant companion for these hours. The familiar and melodic classical favorites of the world's greatest composers: Symphonies, concertos, were aired from 9:00 till 11:00 PM.

WFOL moved to their present location housing both transmitters and studios on Route-four on February 14th, 1964. WCNW the AM station was born here. The call letters standing for Country & Western and operated as a daytime station with a power of 1000-watts. In 1965 they obtained what is known as "Pre-Sunrise Authority" to enable them to be on at a regular time each morning. At this time field strength measurements were made and the power was increased to 5000-watts daytime and 1000-watts PSA. The same programs are broadcasts on their FM and AM stations except, of course, the FM is on the air longer at nighttime. The AM must sign off at dusk, or sundown which varies for each month of the year.

We have thus chronicled the story of radio in the greater Cincinnati area for the first fifty years. What the future holds, I cannot guess. Certainly these first formative years are without parallel and the romance and fun which every year held will never come again.

It was Fred Friendly of CBS who said: "The events of this period from 1933 to 1945 will probably be better remembered by ear than by any other dimension. There were more ear-witnesses to Dwight D. Eisenhower on D-Day than there were witnesses at Gettysburg, Waterloo, Thermopylae, Carthage, The battle of Jericho, and all the other battles of history combined. The thirteen years from the beginning of 1933 to the end of 1945 was an era for ear alone. The first and the last. Future great happenings will be televised and remembered visually as well as in the mind's-ear."

It was Brock Brower who said: "It was phony merchandise in a phony world, but we took Radioland for real and found in it a certain permanence that seems woefully lacking in TV programming. The favorite shows, corny as they might be, did not betray you-they could be depended upon to remain familiar, not to live riotously-and you did not desert them. Mr. First Nighter always had his seat on the aisle-"Curtain Time! Curtain going up!" -and the recorded locomotive roared into "Grand Central Station" every Saturday afternoon. Mr. Keen was forever tracing lost persons, and Ellery Queen never failed of a fantastically contorted solution to the crime after the guest Armchair Detectives had made their own wild guesses. What came after was TV, and when they tried abortively to put Allen's Alley on TV they ended up with a bunch of Puppets." THE END