WWJ, A Jesuit and the Bomb

This year the anniversaries of two significant events in world history will coincide in August: the 75th anniversary of WWJ (the first commercial radio station) and the 50th anniversary of the dropping of the Bomb in Japan. These events will no doubt be covered in some manner by the media. However, until now their connection has never been published. The family related to the late Fr. Michael D. Lyons, formerly of the *Society of Jesus* or *The Jesuits*, never intended to hide the following story from the public. The truth is that much of the story was buried in an old steamer trunk in Grayling, Michigan until 1987.

In 1987, Michigan celebrated its sesquicentennial or 150th anniversary. *The Library of Michigan* and *The Michigan Genealogical Council* offered Pioneer Certificates to any applicant, who could prove that his or her family had been in Michigan for over 150 years. With some effort and research at the *Burton Historical Collection* of the *Detroit Public Library*, the author of this article managed to provide enough information to acquire certificates with the following names of his ancestors: Francois Bienvenu "dit" DeLisle, Estienne Benoit "dit" Livernois, Jean Casse "dit" St. Aubin, Ambroise Riopelle, Jacques & Michael Campau. All of these family names can still be found on street signs throughout Detroit. What the author did not expect to find were his great-uncle's papers and letters in the bottom of his grandmother's steamer trunk.

Every ten years since August 20, 1920 *The Detroit News* has published an article concerning the anniversary of WWJ radio station. Typically, the article covers the events of the 20th of August 1920, when WWJ first officially began its broadcast as 8MK in a room on the second floor of *The Detroit News Building*. However, there is a story these articles have never told.

In 1917, *Cass Tech High School* offered its first class in wireless communication (as it was called), where some of its students were to be young boys in the military and naval services. Many of these young men were preparing to take their part in the battlefields of World War I. When Mike arrived with his younger brother Frank at *Cass Tech High* to enroll in the class, the administrator informed him that the class had been canceled, since there was no instructor. Mike and Frank left the building, but once outside Mike announced to his brother "I'll teach the class!" Frank got excited with the idea and asked his brother if he could teach too. Mike informed his brother that only he would be able to teach since he was sixteen, the minimum age for a work permit. Frank was two years younger. Mike became the instructor at the age of 16, and spent the following Summer as the Chief Radio Operator on the steamer named *City of Mackinac* which was owned by the *Detroit & Cleveland*

(D&C) Navigation Company. This is the same *D&C Navigation Company*, which took part in building the *Grand Hotel* on Mackinaw Island.

In 1918, Mike entered the *University of Detroit High School* and in the Fall of 1920 led their work in building their first radio station, 8YAF. *The Intercity Radio Corp.*, whose station was located on top of the Goodyear Building offered the *University of Detroit High* a 3 kilowatt transmitter in return for certain privileges. This transmitter was installed in a small room on the roof of the high school's Engineering Building.

By 1919, several amateur radio clubs had formed in the Detroit area. The most significant of which was called the *Detroit Amateur Radio Association* or *D.A.R.A.* It was from this club that Mike became noticed by the Scripps family of *The Detroit News*. Perhaps, it was the publication of *The Detroit Radio News*, in January of 1919, which first caught their attention. Mike was the Editor.

At the same time, throughout the world the owners of newspapers were concerned with this new developing technology of wireless communication. Many were calling this technology a "mystic science," and radio a "miracle word." Newspapers feared that if radio became popular nobody would buy a newspaper, and they would be out of business. At *The Detroit News* many were also concerned that if people heard that they were going to financially back the development of a radio station, they would become the object of ridicule. Their involvement in developing their station began without publicity. In fact, most of the first commercial radio stations were built and financed by newspapers.

Word had gotten out about the radio transmitter and antenna installed by Mike and Frank at their parents' house, which was located at 463 Green Avenue in Delray. The amateur radio, 8AM, could transmit further than most of the other amateur radios in Detroit due to the height of its antenna, which stood towering in the backyard, and let off what many of they neighbors felt was an irritating buzzing sound. Frank was proud of this station, since it was the first licensed to him.

The Detroit News paid Mike to supervise and assist in the installation of 8MK in the second floor of their building, and even asked him to have it licensed in his name with his address at 463 Green Avenue. This was done to keep some distance between the radio station and the newspaper. However, Mike became angry when he heard that they had hired someone else to install the antenna. This antenna proved to be faulty, and Mike had to rush to repair and redesign the antenna before the first scheduled broadcast. For this repair work Mike was owed an additional $500, which was quite a sum. Yet, Mike was never paid for this work and he became bitter, and cut his ties with *The Detroit News*. Mike had a hard time getting the $25 per month salary he was owed as a supervisor until the patent battle between DeForest and Marconi had been settled around 1932. However, this

station could no longer be considered an amateur operation, since people were being hired and paid to set-up and run its broadcasts, which were to officially begin on the 20th of August, 1920. Before its first broadcast 8MK's license was transferred to *The Detroit News*, and later on March 3, 1922 the call letters would be changed to WWJ, named after W. J. Scripps.

Since that fateful date, several have challenged WWJ's claim as the first commercial radio station, foremost is KDKA of Pittsburgh, Pennsylvania which began broadcasting on November 2, 1920 (nearly 11 weeks after WWJ). KDKA's broadcasts were semi-weekly, while WWJ has broadcasted every day and night since August 20, 1920. KDKA did however receive the first commercial license from the government on October 27, 1920 nearly a year before WWJ received their license from the government. However, the "father" of radio, famed inventor Lee DeForest, appears to have settled the dispute in 1936 when he said: "On the night of August 20, 1920, the first commercial radio station in all the world was opened. And every night and every day since that momentous beginning WWJ has maintained this service." WWJ was no amateur operation as KDKA has claimed. Mike and others were paid to install and run the station.

In August of 1921, Mike, Frank and their friend Ed Clark (who started WJR) convinced the police in Toledo, Ohio to allow them to install a radio in one of their cars. They wanted to show them how radio could help them catch criminals faster. Mike and Ed sat in the back seat of a patrol car with a transmitter/receiver stretched across the whole back seat. Frank operated a transmitter/receiver in the police station. Soon after the car was on patrol a call came from the station, informing the car's occupants of the address where a breaking and entering was taking place. The patrol car sped to the scene and quickly apprehended the perpetrator. This was the first time a radio had been installed in a police car. News of the event reached several papers throughout the United States and *RCA* quickly received a contract to install radios in many of this nation's patrol cars. The young men were in Toledo to open their first commercial wireless telephone station for business. The three partners called their business the *Central States Radio Service* and had a similar station in Detroit. Their plan was to deliver messages faster and cheaper than the telegraph services. Eventually their plan was to reach an agreement with the *Intercity Radio Corporation* so that communications could be established with their stations in Cleveland, Chicago, New York, Pittsburgh and Philadelphia. However, the *Intercity Radio Corporation* soon failed. The *Central States Radio Service* and the station in Detroit opened by Mike, Frank and Ed were soon closed.

On August 6, 1922 Mike left Detroit and entered the *Society of Jesus* or *The Jesuits*. Mike entered *St. Stanislaus Jesuit Seminary* in Florissant, Missouri as a novice. Since Mike had been a small boy his mother had hoped and dreamed that Mike would some day come to serve as a priest. His mother would often collect the used

and worn garments from *All Saints Church* on Fort Street and from the Jesuit residence near their home, when Mike was small, and sew new clothes for him. Perhaps his mother believed these special clothes would act as "holy armor" in his life ahead.

On August 16, 1924 Mike was enrolled by the Jesuits into *St. Louis University's School of Philosophy and Science.* Mike performed extremely well in most of his classes, which consisted of languages (Latin, Greek & Hebrew), education, math, philosophy and science (primarily chemistry and geology). It was during Mike's final academic year (1926-1927), that many events would coincide to shape his future.

In that year Mike wrote an article in the January-February 1927 *Physics Bulletin* entitled "Plan to Utilize Radio to Hasten the Conversion of Asia." Mike had already gained quite a reputation around the university with radios, since he was instrumental in building *St. Louis University's* radio station. However Mike's article had received notice at many levels throughout the Jesuits and the Catholic Church hierarchy. Mike proposed setting up radio stations in three locations in India, two in China, one in Japan and one in the Philippines at a cost not to exceed $25,000 per station. His idea was to utilize these stations to broadcast their messages to the masses, and even into the palaces of the maharajahs in the hopes of speedier conversion into the Catholic faith. As an additional service they could offer spiritual and medical advice, as well as nursery rhymes.

In that final year, Mike also studied Geology under Father James Bernard Macelwane, who established the *Seismological Society of America.* Father Macelwane would later be granted "Q" level security clearance by the *Atomic Energy Program* in 1948. This "Q" level security clearance allowed the individual access to any information involved in the design and development of nuclear weapons. It is believed that Father Macelwane assisted in guiding the U.S. Government in locating strategic minerals, and quite possibly in locating sites for below ground weapons development. Mike had also acquired "Q" level security clearance, but he received it before Father Macelwane.

During his final year at *St. Louis University*, Mike received notice that he had been chosen for the missions of northern India. On October 12, 1927 Mike left for India by boat, sailing first for Liverpool, England stopping briefly in Port Said and Aden past Mount Sinai, through the Red Sea and finally to Bombay, India. Mike graduated university by finishing his final courses at *Sacred Heart College* at Shembaganur in the Madura District of India.

On November 21, 1933 Mike was ordained at *St. Mary's College* in the foothills of the Himalaya Mountains. St. Mary's was a beautiful college which rested a mile above sea level with a commanding view of the vast plains below. When windows

were left open in the church, clouds would often drift in and hover until a breeze moved them out again. Behind the college is a dense forest of pines, in which stands a gleaming white statue of the Sacred Heart. It was here that Mike heard the words that every young Jesuit scholastic yearns to hear: Tu es sacerdos in aeternum, or "You are a priest for eternity."

From 1927 to 1941 Mike served as a Jesuit missionary in Allahabad, Bettiah, Chuhari, Bhagalpur and Kurseong only leaving once in 1931 to study Theology in Belgium for a short time. Mike served as a missionary under Bishop Bernard J. Sullivan, S.J.D.D., who was the Bishop of Patna, India from 1929 to 1946. Mike's ability to speak several different dialects of the native languages became well known. In addition, he had helped edit the *Patna Mission Letter*. Yet, the majority of Mike's work centered around the missionary work with the poorest castes of India.

Through his work Mike eventually became assigned to a mission where he met again a beautiful young Anglo-Indian woman, who served as a Nun of the Sacred Heart caring for the sick and orphaned. Her name was Agnes Julius Shah. Mike remembered meeting Agnes when he first arrived in India. She was only 15-years-old then. She was now 26-years-old, 12 years younger than Mike. Soon Mike could think of nobody else, and secretly in his prayers he asked for another mission to take him away from the temptation he was feeling. His prayers were soon answered when he was reassigned to a small nearby village in the district of Bhagalpur called "Latonah."

In Latonah, Mike spent much of his time with the converted depressed classes, or lower castes. Later in a mission in Gaya, India Mike began to have problems with malaria, and Bishop Sullivan decided that Mike would need the care of a live-in nun with training in nursing, if he were to carry out his missionary work. Yet, having a woman live in a house with a priest, even if she was a nun, would not have looked proper, so the Bishop decided to send two sisters. As fate would have it, one of the sisters was Agnes Shah. They fell in love, and soon Agnes was with child.

By July of 1940 the Father Provincial would begin to hear that Mike was involved with Agnes, but no action would be taken until it was confirmed. On November 27, 1940 Esther Mary was born to Agnes and Mike. The new parents were very excited, but in the eyes of the church Mike had committed fugam arripuit cum moliere or "had taken flight with a woman." Knowing that he would soon be asked to resign from the Jesuits, Mike began to seek work as a journalist in Dehli. Eventually, Mike moved his new family to Calcutta, where he continued his work as a priest with the poor and wrote articles on India for publication in the United States.

In 1941, Mike officially resigned from "The Society of Jesus. In 1941, Mike also met the "great soul" Mohandas K. Gandhi or as most refer to him today "Mahatma Gandhi." In a letter dated December 28th, 1941 Mike wrote:

"I saw Mahatma Gandhi to ask him his ideas on uplift work . . . I may say I asked him point blank if he had any hopes for the removal of poverty from India, and the old man, lying on a carpet on the bare ground, smiling replied that he really did. "How?" "Well," he replied, "It is like this," and he proceeded to tell me that a fire spreads and that the true solution in one place will spread all over, and I had to seek the true solution in one place. I replied at once that I hoped to find that fire of true reform burning in his village, to which the old man laughingly replied, " I can't say you'll find it here." He proceeded to state that the true solution required the spirit of sacrifice, which he was trying to give the people."

In the next few years, a friendship would develop between Mike and Gandhi. On the 10th of December, 1941 Mike met Jawaharlal Nehru, who was "living in a beautiful home in a fine compound called *Ananad Bhawan*, *Abode of Happiness*, at Allahabad."

In March of 1942, Mike was reassigned by church authorities to *St. Xavier's Mission* of Robertsganj in Mirzapur, Upper Pradesh (just west of Patna). From there Mike moved to Meerut, India in 1943 and began increased contact with many American soldiers, who were stationed in India. It was through these acquaintances that Mike finally came into the service of the *Federal Economic Administration (F.E.A.)* in 1944. In addition, on February 23, 1944 Agnes gave birth to their second daughter "Violet Rita." With the permission of his church Superiors, Mike began traveling throughout India in a Jeep, mapping out the strategic minerals of India for the F.E.A.

Toward the end of 1944, Leo Szilard and Enrico Fermi, who were involved with the *Manhattan Project*, had determined that the element they would need to trigger a nuclear weapon was a light metal named: "beryllium." It was the neutrons in the element which would split the Polonium210 atoms and cause the explosion. In a letter dated January 2, 1945 and marked "confidential," a Mr. H. W. Witt, Procurement Officer of the F.E.A. wrote the following to Mr. Arthur Z. Gardiner, of the *Foreign Procurement and Development Branch* in Washington, D.C. :

"Lyons is particularly well fitted for this type of work. He is an indefatigable worker with rarely found knowledge of India and her peoples. He has been 17 years in the villages, knows many of the native languages and obtains information that I doubt could be obtained by anyone else in India, including the British. Lyons spent some time in Bihar. He reported on occurrences of beryl and other minerals.... At present Lyons is in South India. His reports to date on this area comprise about 100 pages. They cover a wide range of interests, including

general geological information, mineral occurrences (not limited to beryl and tantalite)...."

This letter was copied to Messrs. Babb, Hummer, Macy and Dr. Hulin all of the *State Department.* In addition, this letter was written and sent seven months before *Fat Man* and *Little Boy* were dropped on Hiroshima (August 6, 1945) and Nagasaki (August 9, 1945). Ironically, on August 15, 1945 Emperor Hirohito's voice would be heard for the first time publically "on radio" announcing Japan's unconditional surrender.

The "beryl" referred to in the letter is a crystal from which beryllium can be extracted. Beryllium was the "final element." Designing and developing a nuclear weapon without beryllium as an initiator, would be similar to designing and developing the first cars without gasoline. Sometime during the *Manhattan Project*, it became clear that people with the ability to find beryl crystals, and extract the beryllium would be vital to national security, and the further development of nuclear weapons.

In 1947, Mike was brought back to the United States on official government business. How Mike got separated from Agnes and his daughters is a mystery to this day. One version of the story, was that Mike received a cable from the British informing him that his visa had been revoked, and that he would not be allowed to return to India. It was also rumored that when Mike cabled the new Bishop for his help, with Agnes and his daughters, he was told to go back to being a priest, and that the other Jesuits were under strict orders to avoid contact with him. One thing that was certain, was that Agnes was unable to contact Mike through the church.

From 1946 to 1947, Mike published several articles on India, as India gained its independence from British rule. These articles appeared in the December 22, 1946 *New York Times*, and the January and February 1947 issues of *Columbia* magazine. Mike kept up his work raising money for the missions in India, often funneling the money to the missions anonymously, while maintaining his work with beryl for the U.S. Government.

In 1946, Bishop Sullivan returned home to Denver, Colorado and *St. Regis University*. Mike later followed to Arvada, Colorado which was about 15 minutes from *St. Regis University* and Boulder. From a piece of property on a hill facing the mountains and Boulder to the west, Mike began *The Radio Communication Company* and *The Beryl Ores Company*. The *Radio Communication Company* was set up to provide people, who lived over the first ridge of mountains west of Boulder with a means of contacting the sheriff or friends, since telephone lines could not be installed. This was the business that most of the people in the area knew Mike owned and ran. Eventually, the townspeople of Arvada made him the President of

the Chamber of Commerce. However, they never knew he was a priest until they attended his funeral in 1974.

The Beryl Ores Company was set up to supply the U.S. Government with beryllium for the triggering mechanisms of nuclear weapons. A few men worked grinding the beryl crystals into a power, which was later heated and treated with acid to extract the beryllium. This beryllium was often delivered by walking it over to the *Rocky Flats Plant* which made the triggers for nuclear weapons. The *Rocky Flats Plant* is about 200 yards from the property and house where Mike lived and worked. More recently, the *Rocky Flats Plant* made the *W-88* warhead for the *Trident II* missile.

In 1970, Mike began having difficulties breathing and was put on oxygen, but he couldn't understand why, since he never smoked. Mike had also been brought back into the priesthood officially, even though he had been allowed, by the local Bishop, to travel to North and South Dakota, and other neighboring states and serve communion as a priest. As 1974 approached Mike knew he was dying. He contacted the local bishop and asked if he could be buried with the Jesuits, near Bishop Sullivan (who died in 1970) at *Mount Olivet Cemetery*. The bishop refused. However, Mike managed to buy a plot just outside the area owned by the Jesuits, which positioned him at the foot of Bishop Sullivan.

Mike died August 17, 1974. The certificate of death indicates that he died of "acute respiratory failure." A publication provided to the public by the *Rocky Flats Plant* states: beryllium dust is toxic and can cause a lung disease called "chronic beryllium disease" (similar to asbestosis). . ." Ironically, it is very likely that the dust from the beryllium, Mike smelted, caused his "acute respiratory failure."

To this day, there are still some questions about Mike's life, which have been left unanswered. Did Mike, a priest, supply the "final element for *Fat Man* and *Little Boy*? Was Mike the U.S. Government's primary supplier of beryllium? What role if any did Mike play in the U.S. Government's decision, not to become more involved in India as the British lost control and India gained independence? How and why did Mike and Agnes get seperated? Why did the Catholic Church officials in Patna not make an effort this assist Agnes in reuniting her and her daughters with Mike and his family in the United States? Many of these questions will not be answered until Mike's F.B.I. file is released by the U.S. Government, and until Mike's secret Vatican file is released.

The author of this article is currently working on a book about life of his great-uncle, Father Michael D. Lyons which will be entitled: Sacerdos. However, the book will not be complete until Mike's files are released by the F.B.I. and the Vatican. In addition, in October of 1993, the author finally made contact with Esther and Violet, Mike's daughters, and is looking forward to bringing the family back together again.

Note: Many letters, documents and photos are available for print, upon request. In addition, this article was typed using Microsoft Word 6.0 and can be E-mailed from MCQUEEN327@AOL.com

10,000 Alkire Street
Box 105, Route 1
Arvada, Cooorado 80005
December 23, 1973

Dear Helen,

It is cheaper to write than to phone!

Excuse the typewriter. It is better than my handwriting.

The sweater is excellent, fits like a glove. You should not have bought such an expensive one.

I did not, and I thi nk Frank did not work much on WJR, Ed Clark's station.

The Detroit News radio was licensed to me as 8MK, with my address on Green Avenue. Later the call was changed to WWJ.

I'll never forget the Tuesday we started broadcasting, and the reporters would not publish the fact, because they were afraid people would laugh at the Detroit News paper. Besides, I was told, there was a chnce the r dio news would deter people from buying newspapers to get the news.

Thursday a news item appeared in the Detroit News telling about the broadcast ststion.

The News and Music Company (or some such title) which supplied the transmitter was asked by the Detroit News about patent infringements, since I seem to recall that Marconi claimed DeForest was in the wrong. The Detroit News contact I had informed me that until that was cleared up they did not want to pay me my $25 a month for part time supervision. They paid after three months and the case against DeForest, I believe, was settled in about 1932.

It was a pleasure to talk with Clyde today. I'll wrtie more later. Keep kind to Frank, and to Clyde if h is g o o d .... Your bro.,

Lee

P.S. Please do not give above details to anyone. I can write up what I want. Give me more time.....

My best regards to Clyde.

Lee

OUTLINE OF "SACERDOS"
A Book & Movie about the Life of Fr. Michael D. Lyons

I. Birth of Michael DeLisle Lyons

- Born: Thursday September 26, 1901 Delray, Michigan

- Weight: 11 pounds

- Baptized at "All Saints Church" by Rev. Doman on September 29, 1901
  Sponsors: Peter B. DeLisle and Adelaide (Catherine Payette) DeLisle

- Beginning of the eighth generation of our family in Detroit

- Storm & church bells ringing at "All Saints Church" on Fort Street

- Relatives who stopped by: Payette, Livernois, Riopelle, Campau,
  St. Aubin, Trombley, Drouillard and Jesuits

- Birth Notice in the newspaper:

  "Mr. and Mrs. Michael P. Lyons are rejoicing over the
  arrival of an eleven pound boy at their home Wednesday
  [should be Thursday] night. Supervisor DeLisle thus
  becomes grandpa, and wears the new honor in a very
  dignified manner."

- Mike attends Holy Redeemer for his primary education.

II. Mike's Family History

- Francois Bienvenu "dit" DeLisle came to Detroit as a lieutenant with
  Antoine Laumet de Lamothe Cadillac July 24, 1701 & helped establish Fort
  Pontchartrain. Cadillac was Commandant of Michilimackinac in 1694.
  Francois was born in the parish of St. Pierre La Rochelle, France (on
  the island "de l'ilse" of Oleron off the coast of La Rochelle).

- Francois desired to raise a rebellion with MM. de Mauthet and de
  Courtemanche at Michilimackinac and was " . . . put under arrest at
  Montreal and afterwards sent to prison at Quebec [City] where they
  remained a month . . ."

- Francois, Alexis, Alexis, Bienvenu, Peter Bienvenu (had lumber contract
  when Fort Wayne was built on the Detroit River), Peter Bienvenu
  (Supervisor, Judge and State Rep.), Bertha Ida, Michael DeLisle Lyons.

- Francois Bienvenu called de L'isle " a site with thirty feet frontage to St. Louis Street and twenty-two feet wide adjoining Desroches, on one side and M. Michel Masse on the other, for 3# qui-rent and rent and 10# for other rights which we have given up. Entry #22: March 10, 1707.

- From Cadillac's Papers dated March 10, 1723:
  " You will allow me, Sir, to represent to you that private persons abuse the permission you give them to bring brandy for their own use, selling it retail to the French people, as La Janurie and de L'isle [Francois Bienvenu "dit" DeLisle] did. The latter sold a barrel containing three pots to Chauvet; and when it was being drunk at his house at night, a great disturbance took place and I was obliged to go there with the major to put a stop to it. Moreover, I cannot be answerable for what is given to the savages as long as private persons have what they think fit; more especially as I am informed that some of them got intoxicated this winter in the woods."

III. Mike's Siblings

- Francis "Frank" Louis Lyons: born January 8, 1903. Mike and Frank became inseparable playmates, and later worked in radio together. Frank was tall, good looking with a mustache and dark hair. Frank enjoyed sailing.

- Robert ------ Lyons: born September 21, 1905 died at nine from blood poisoning (die in sock entered a blister).

- Cathrine ----- Lyons: born November 27, 1906 died when accidently crushed?

- Helen Marie Lyons: born July 4, 1908 who would later marry Clyde Delbert McQueen of Defiance, Ohio (May 12, 1928) [My grandmother]

- Margaret ----- Lyons: born September 6, 1910 married 1st Mel Butler, 2nd Joseph O'Neill

- Loretta Anne Lyons: born June 24, 1914 married John "Jack" W. Williams Jr.

- Marie Evelyn Lyons: born November 21, 1915 married Daniel R. Fitpatrick

- Genevieve ----- Lyons: died at birth.

IV. Youth of Michael DeLisle Lyons

- Mike attends Holy Redeemer's parochial school for his primary education (Kindergarden through 8th Grade).

- Mike gets the "Croup" (definition: a pathological condition affecting the larynx in children, characterized by respiratory difficulty and a harsh cough.), which almost kills him. His mother lays him on her lap and slaps his back to get Mike to cough up Flem and clear his lungs. This may have saved his life.

- Bertha also walks to "All Saints Church" and to the Jesuit residence to collect the worn out vestments and robes of the priests to make clothing for Mike: "Holy Armor." Bertha begins to slowly guide Mike toward the priesthood.

V. Mike and Radio

- 1917 Mike gets a summer job as the Chief Radio Operator for the Detroit & Cleveland (D & C) Navigation Company on the steamer named: City of Mackinac, which sailed up the Great Lakes. Mike was placed in full charge of the radio equipment of five of the boats. (Through the efforts of Sen. Francis B. Stockbridge) Detroit & Cleveland Navigation Co. built the Grand Hotel on Mackinac Island, together with the Grand Rapids & Indiana and the Michigan Central railroads. The Grand Hotel was opened July 10, 1887.

- Mike enters the University of Detroit High School in 1918.

- Mike becomes a radio instructor at Cass Technical High School from 1917 to 1922, where some of the students were in the military and naval services. Mike and Frank originally went to Cass Tech to take the class only to be told the class would be cancelled since no instructor was available. Then Mike took Frank to the administration office and convinced the administrators to let him teach the class. Frank wanted to teach also, but he was too young to have a work permit.

- October of 1919, shortly after WWI, the Detroit Amateur Radio Association (D.A.R.A.) was formed. From the DARA February 1969 Bulletin:

  "An initial group consisting of Clyde E. Darr, 8CB/8ZZ; George Lewis Carter; H. P. Hardesty, 8RF; James H. Ferris; and M. D. Lyons, 8AM was formed. "Mike" Lyons called an open meeting of local radio amateurs in the gymnasium of the University of Detroit at which 60 attended, and a Committee on Organization was quickly appointed. . .

. . . This first board of directors met regularly in the offices of G. Lewis Carter in the old Majestic Building, and at the first meeting, elected Clyde E. Darr, 8CB/8ZZ as President; James H. Ferris as Vice-President; M. D. Lyons, 8AM as Secretary; and F. L. Black as Treasurer.
. . . In the Spring of 1920, Ed Clark, 8AO and Oscar Gabbert, who induced The Free Press to print a full page on local radio activities, were elected to the board. . .
. . . At this time the club meetings were changed from Cass Technical High School to the Board of Commerce Building and a club paper called "The Detroit Radio News" was born. The first copy was reproduced on a mimeograph by James H. Ferris, who had been appointed Editor. The first copy was published January, 1920. . .
. . . When James H. Ferris moved to Frankfort, Michigan, M. D. Lyons was appointed editor, which job he held for quite some time. Amateurs all over the country were watching DRA's efforts inn publishing this new type of paper. . .
. . . In the fall of 1920, the annual election of officers was held in the conference room of the Detroit News, and there was a considerable change in the board of directors. Clyde E. Darr, 8CB was re-elected President; M. D. Lyons, 8AM as Vice-President; Ed Clark, 8AO as Secretary, and C. W. Lucas, 8AE, as Treasurer. . ."

- Mike's letter dated December 23, 1973 indicates:

"I did not, and I think Frank did not work much on WJR, Ed Clark's station.

The Detroit News radio was licensed to me as 8MK, with my address on [463] Green Avenue. Later the call was changed to WWJ.

I'll never forget the Tuesday [Thursday?] we started broadcasting, and the reporters would not publish the fact, because they were afraid people would laugh at the Detroit News paper. Besides, I was told, there was a chance the radio news would deter people from buying newspapers to get the news.

Thursday a news item appeared in the Detroit News telling about the broadcast station.

The News and Music Company (or some such title) which supplied the transmitter was asked by the Detroit News about patent infringements, since I seem to recall that Marconi claimed DeForest was in the wrong. The Detroit News contact I had informed me that until that was cleared up they did not want to pay me my $25 a month for part time supervision. They paid after three months and the case against Deforest, I believe, was settled in about 1932.

- Frank had 8AM at 463 Green Avenue, Detroit . . . the neighbors would sometimes complain about the buzzing noise the backyard antenna would make.

- August 20, 1920 8MK began operations on a more or less experimental basis - broadcasting daily without publicity. After 11 days of operation, 8MK announced that the local, state and national (congressional) elections would be broadcast. This was on August 31, 1920. Night and day broadcasts since August 20, 1920. Commercial license issued October 13, 1921.

- November 2, 1920 KDKA of Pittsburgh, PA. begins its first broadcast. Programs were semi-weekly until December 1, 1920. Commercial license issued October 27, 1920.

- Ed Clark's station was called 8AO, 81 Spokane, Detroit and later WJR.

- Article from Volume 1, Number 7 of the Detroit Radio News, dated Tuesday, August 17th, 1920:

Radio Enthusiasts Have Outing

The success of the outing on Sunday, August 1st, can be proved by any of the fellows who paid the three cents toll charge to cross the Gross Ile bridge.

President Darr's mammmoth green monster of the road was heavily laden with radio apparatus and lousy with radio bugs. It carried everything from Updike's soft coal detector to Mr. Darr's five K.W. Amrad coil. The wild, raging Lyons [Frank] carried a two-step amplifier of foreign make - namely, Cleveland. Ed. Ryan carried a 500-cycle three-inch open core transformer and was capable of transmitting to Messrs. Darr and Lyons. Teddy Schmalzriedt, the guy we are always bawling out for failing to receive the paper on time, was also there.

F. E. Lyons, our member who is so embarrassed by the fair sex, had a thrilling experience. He had just finished tuning his receiver when a beautifully-painted "queen" waltzed up out of the crowd and sweetly asked "his honor" what

a wireless station sounded like. Of course Frank couldn't refuse, and so he very gently pressed the phones against the hair-covered ears of ye fair maiden, and, Oh, Boy! he could almost feel that dollar slipping out of his pocket and into the cash drawer of the marriage license bureau.

His dreams of a future assistant radio operator, under the name of Mrs. F. E. were heartlessly shattered when she turned to a gentleman in the crowd and said: "Hubby, how do I look with these things on my head?"

- Article entitled (Date & Publication unknown):

ENTHUSIASM MARKS ENTRANCE OF RADIO INTO UNIVERSITY HIGH

This article was not written to rouse your interest in radio - that miracle word of the last six months - nor to inform the budding neophite how to construct and operate a six-stage, tone-frequency, vacuum-valve amplifier. It was composed with the sole aim of telling the world just what part radio has played in the University of Detroit High School.

Four years ago, a carefree Irishman, Michael Lyons by name, enrolled as a freshman in the Hi. His walk and manner professed him to be a seaman, and they did not prevaricate. Mike had come directly from the old D.& C. steamer, "City of Mackinac," where he had been employed throughout the summer as a wireless operator.

He talked radio about the school, he wrote about radio and he instilled a slight interest of radio into several members of his class. His evening hours were spent as radio instructor at Cass Tech. High School, where he has had the pleasure of teaching some of his school-mates all about that mystic science.

Radio personified may be said to have entered the school one bright autumn day in 1918. From that time, interest in radio increased in the High School and in the University at large. . .
In the fall of 1920, the Detroit News opened their radio braodcasting station. Music from this station provided jazz for the first radio dance of Detroit, held at the home of C. F. Hammond, Jr.

- October 13, 1921 the first commercial license was issued to the Detroit News station under new call letters, WBL. It was March 3, 1922, that the call letters, were changed to WWJ.

- Tuesday, August 30, 1921 newspaper article:

"Wireless Connection Established Between Toledo and Detroit"

Commercial Messages Now Transmitted With Facility by Modern Method

---

Toledo's first commercial wireless telephone station was opened for business yesterday with service between Toledo and Detroit.

The station has just been erected by Michael and Francis Lyons and Edward Clark, at 1718 Oakdale avenue. The three partners, doing business under the name of the Central States Radio Service, have a similar station in Detroit, and plan to deliver messages the same as telegraph companies but promise a much faster and cheaper service.

Altho the service is at present only between Toledo and Detroit, the owners expect to reach a business agreement with the Inter-City Radio Corporation so that regular communication can be established with the stations of this concern, in Cleveland, Chicago, New York, Pittsburgh and Philadelphia.

The sending and receiving apparatus of the local station is powerful enough to reach these stations but will not be able to reach Pacific coast stations until an intermediate station is established at Salt Lake City or some other similar point.

Michael Lyons and E. Clark are the two radio experts and inventors who have been demonstrating a wire-

less telephone system for use on police automobiles during the last week.

- Mike was first radio operator at St. Louis University

- From the Physics Bulletin of the American Association of Jesuit Scientists (Central States Division) St. Louis University, St. Louis, Missouri, Volume VI, Number 3, January-February 1927:

A PLAN TO UTILIZE RADIO BROADCASTING TO HASTEN THE CONVERSION OF ASIA.

Mr. Michael D. Lyons, S.J.

It seems plausible that radio broadcasting could be used with excellent results now in the work of Christianizing the billion inhabitants of the continent of Asia.

The advantages of radio are chiefly these:

a.) Catholics should do for religion what the British are about to do in India for sanitation and hygiene and education. They are erecting two high-powered broadcasting stations, and intend to erect receiving sets for whole villages to listen to.

b.) The Intellectual Apostolate is needed badly now. If we get the leaders we shall easily get the masses. Radio will carry our message right into the palaces of even maharajahs and the leaders of the sannyasis.

c.) We cannot get enough nurses for the apostolate to the women, who are often enclosed and who offer a mighty obstacle to the conversion of the races, - at least for decades. Radio will carry nursery rhymes and medical advice and spiritual advice right into the zenanas.

d.) Countries now inaccessible, as Nepal, Tibet, etc., (which the present Holy Father desires evangelized now,) would have the word of God brought in past guards and sentries.

e.) One good speaker would do for a whole people. One priest learns Prabatiya, another Tibetan, etc., and each talks to one nation. The intellectual apostles at seminaries could fight the intellectuals of the other camp.

Programs, - just as they are now delivered in the West. Stations with ranges of 300 miles radii would cost between $1000 and $5000, complete, omitting salaries of installers. If they are well placed they should reach nearly 100,000,000 souls each.

The rich, whom we seek to reach especially, can easily afford receiving sets. Europeans would be glad to hear us. There must be interest in radio in India, for already there are two stations each in Calcutta and Bombay and one each in Karachi and Madras, besides one in Burma and several in China and Japan.

Asia needs and can use broadcasters better than we can in the States, for here in the States the air is crowded with 600 Stations and Catholics are taken care of by 30,000 priests. If Asia is to receive a great increase of Christianity before it hardens we must act quickly, and use something the Lord has sent us, - radio.

Cost, - suppose that $3000 were allowed for each station, and $4000 for the travelling expenses and salary of a Catholic radio operator or engineer willing to sacrifice himself for the great work. The installation would then cost not over $25,000.

Financing. Money could easily be gotten in the United States from American Catholic and even non-Catholic radio fans. The novelty of the idea would appeal to their generosity. Some slogan as this could be used: "English Catholics pay the government for the privilege of listening in. You pay a fee of one dollar a year for the Asiatic stations in gratitude to God for your radio set." "Buy a machine gun for the New Crusade."

These stations could be erected in the following places:

1.) St. Mary's Seminary, Kurseong, Dargeeling, India.
2.) Shembaganur, Madura District, India.
3.) Catholic school, Agra, India.
4.) Father Simon Tang's mission, near Canton, China.
5.) Cathedral, Peking, China.
6.) Catholic University, Tokyo, Japan.
7.) Ateneo, Philippine Islands.

These centers were selected because these missionaries would probably be very glad to have these station. Kurseong should be the first, as it is the center for influence in Bhutan, Nepal, and Tibet.

The maintenance is very small. The greatest item is that of cost of an operator. Some Brothers could easily do this work in connection with seismographs and other scientific instruments.

A small station could be erected in Kurseong, at the cost of only $1000 or less, and be good for transmission of 75-750 miles, depending on the climate, direction, and factors at the receiving end.

- Detroit News article dated Sunday August 21, 1960 entitled:

The Night Radio Was Born

. . . Michael D. Lyons, who had installed the transmitter, stood nearby and gave a smile of approval as the first broadcast began. . .
. . . Lyons abandoned radio and went into the priesthood.

In 1927, he left Detroit to serve in Patna, India mission field as a Jesuit scholastic and was ordained four years later at St. Mary's College, Kurseong, India.

After 19 years as a missionary, he returned to the United States in 1946 to write articles on the plight of the Indians. According to the best information, he has returned to India and is believed to be living in Calcutta, but his exact whereabout is not known.
. . . The "father" of radio, famed inventor Lee DeForest, appears to have settled the dispute (Who was the first commercial radio station WWJ or KDKA?) in 1936 when he said: "On the night of Aug. 20, 1920, the first commercial radio station in the world was opened. And every night and every day since that momentous beginning WWJ has maintained this service.

- From Mike's letter dated, February 2, 1974:

> For years I have tried to live in retirement. I know some people in Detroit looked for me as the mann who installed the first broadcast station unit in the Detroit News WWJ when they had celebrations for their fiftieth anniversary in 1970.
>
> But if I were a public figure I'd be asked all sorts of questions and people around here would find out I am a priest, and neither the Church authorities nor I want thatt to happen.

- Mike graduates from University of Detroit High School in 1922.

VI. Mike Enters the Society of Jesus, "The Jesuits"

- Mike entered the Society of Jesus, "The Jesuits," on August 6, 1922 as a novice at St. Stanislaus Jesuit Seminary in Florissant, Missouri.

VII. Mike Enters St. Louis University

- During the 1926-1927 academic year Mike studied Geology under Father James Bernard Macelwane, who established the Jesuit Seismological Association and the Seismological Society of America. Fr. Macelwane also applied for, and was granted "Q-level" security clearance with the Atomic Energy Program in 1948.

- Mike receives an A.B. degree in 1929 after finishing his studies at Sacred Heart College, Shemabanur, Madura District, India.

VIII. Mike Enters St. Mary's College, Kurseong, India.

- St. Mary's is situated in the foothills of the Himalaya Mountains, over a mile above sea level, with a commanding view of the vast plains of India and the mountain-fortified kingdom of Nepal. Behind the college is a dense forest of pines, in which stands a gleamingly white statue of the Sacred Heart which seems to say: "Let all come unto me."

- Mike was ordained at St. Mary's November 21, 1933 by His Grace Dr. F. Perier S.J., the Archbishop of Calcutta. "Tu es sacerdos in aeternum (You are a priest for eternity)." After which the priests are priviledged to say: "Benedicto Dei omnipotentis, Patris, et Filii, et Spiritus Sancti, decendat super vos, et maneat semper. Amen."

IX. Missionary Years (1927 - 1946)

X. Mike, Sister Agnes Julius Shah and their two Daughters (Esther & Violet)

XI. Mike Leaves the Jesuits in 1940 - 1941, but continues Missionary Work

XII. Mike begins working with the F.E.A. on Strategic Minerals (Beryl)

XIII. Mike and Mahatma Gandhi

XIV. Mike Leaves India for U.S.A.

XV. Mike's Fund Raising Efforts for India Missions

XVI. Mike goes into hiding & moves to Arvada, Colorado with Petronilla Marchulones and begins supplying Beryllium and making Radios

XVII. Mike's found in Colorado by his Brother Frank

XVIII. Mike's Daughter Esther comes to Visit

XIX. Mike Dies buried at the feet of Bishop Sullivan

10,000 Alkire St.,
Box 105, Route 1
Arvada, Colorado 80005
April 11, 1974

Dear Helen,

As I told you on the phone, I had been thinking of asking you to do me a favor. It follows.-

I was impressed by many things connected with the "Old Cathedral in Patna City," known locally as "Padri ki Haveli," which means "The Priest's Home." Some 50 German and other Sisters are buried there, and itwas the first burial place of Bishop Anastasius Hartmann, Capuchine who is being promoted as a candidate for beatification by Rome.

I wanted a Mass said at thealtar there and sent $25 thru the Jesuit Mission Service, 3431 N. Ashland Ave., Chicago, for this prupose sbout 6 months ago. (Much more than the usual stipend.) They said "thanks." But I never heard from the priest in charge of Padri-ki-Haveli. I suppose he favored my request, but I think he should have written a letter for $25.

The ten or so dollars you hold for me could be sent to Bishop A. Wildermuth, S.J., Bishop's House, Bankipore, Patna District, India, for a "Mass at the Old Cathedral of Patna." He is 7 mile s away from it. A bank check on a New York bank through your local bank, sent registered should do the trick. Or you could phone the Jesuit Mission agency in Detroit and get their address and promise to send the check stipend, and give them a check.

DO NOT MENTION MY NAME OR YOUR RELATIONSHIP WITH ME. I'll explain more some day.

Enclosed is a clipping about Israel. I just want you to be careful. Don't try to get my ideas about Zionism. They are too complex for a letter today. I have good Jewish friends, and I enjoy daily readding of the Psalms, (and I do remember the Hebrew I learned to read, and I have to hide the Hebrew texts I have lest visitors put me down as a Jew!)

Helen, please allow me to get on with letters I should have written today and have not done so. Best to Clyde, and don't believe everything you are told.....

Your brother,

P.S. D o uou ever see old Msgr. Hickey at St. Mary's in Redford? His brother Fred was a classmate of mine at U of D High, and it was at St. Mary's that I showed off how my radio redeiver could get a broadcast of sports scores from the transmitter I put in the first WWJ. Old days!

A POST-WWI HISTORY OF DETROIT RADIO CLUBS
1919--1932
By Ralph Thetreau, W8FX

The Detroit Radio Associaton: 1919--1928.

Immediately after World War I came to an end, during the Winter of 1918, and the Spring and Summer of 1919, several prominent pre-WWI Detroit amateurs, plus some newly licensed hams, held meetings every two weeks at each others' homes. In October, 1919, the time was ripe for the forming of a radio club.

An initial group, consisting of Clyde E. Darr, 8CB/8ZZ; George Lewis Carter; H. P. Hardesty, 8RF; James H. Ferris; and M. D. Lyons, 8AM was formed. "Mike" Lyons called an open meeting of local radio amateurs in the gymnasium of the University of Detroit at which 60 attended, and a Committee on Organization was quickly appointed.

This committee adopted a constitution, which was drawn up by G. Lewis Carter, a local attorney. This was presented to a meeting of the amateurs held at Cass Technical High School in the first part of November, 1919, and it was adopted at once as the Charter of the "Detroit Radio Association". The same evening, an election of officers was held.

MIKE LYONS

Among the men elected to the ten man board were the three Carters, George Lewis, George W. and W. J. Carter. None of them were related! George Lewis Carter was an attorney for the city; George W. Carter, 8UA, was an instructor of physics at Central High and Junior College; and W. J. Carter was a draftsman in Windsor, Ontario.

This first board of directors met regularly in the offices of G. Lewis Carter in the old Majestic Building, and at the first meeting, elected Clyde E. Darr, 8CB/8ZZ as President; James H. Ferris as Vice-President; M. D. Lyons, 8AM as Secretary; and F. L. Black as Treasurer. Due to the efforts of this board, the organization grew rapidly.

In the Spring of 1920, Ed Clark, 8AO and Oscar Gabbert, who induced The Free Press to print a full page on local radio activities, were elected to the board.

At this time the club meetings were changed from Cass Technical High School to the Board of Commerce Building and a club paper called "The Detroit Radio News" was born. The first copy was reproduced on a mimeograph by James H. Ferris, who had been appointed Editor. The first copy was published January, 1920.

The February, 1920, issue was printed on the presses of the Dearborn Independent, through the kindness of F. L. Black, their business mamanger, who was also on the DRA board. When James H. Ferris moved to Frankfort, Michigan, M. D. Lyons was appointed editor, which job he held for quite some time. Amateurs all over the country were watching DRA's efforts in publishing this new type of paper.

MIKE LYONS

In the fall of 1930, the annual election of officers was held in the conference room of the Detroit News, and there was considerable change in the board of directors. Clyde E. Darr, 8CB was re-elected President; M. D. Lyons, 8AM as Vice-President; Ed Clark, 8AO as Secretary, and C. W. Lucas, 8AE, as Treasurer. During 1921, Clyde E. Darr changed 8CB to 8ZZ, as his call, retaining it until his death.

The DRA had its trials and tribulations, the same as present day clubs and finally folded up in 1928. In 1929, its remnants were reorganized as the "Detroit Amateur Radio Association", which is still in existence -- but that is a subsequent story in this saga of Detroit radio clubs.

Clyde E. Darr, 8AJD, 8CB, 8ZZ, died on December 10, 1929; and his story will be related as the last chapter of this chronology.

Editor's Note: We are delighted to publish the above chapter of W8FX' authentic history of amateur radio clubs in the Detroit area. It is not necessary to fictionalize a history; and D.A.R.A. is proud that one of our members is taking the time and making the effort to put it into print. Look for future installments !

FALLING OFF PLATE VOLTAGE?

Recently, the 0-1000 volt meter reading final plate voltage on the HT-32A transmitter at WØDSW began to drop very slowly. Each time the rig was used, the indicated voltage would be a bit lower until the idling (standby) voltage that was originally nearly 800 volts dropped to 250 volts. A new 5R4GYB rectifier was tried with no change. Thinking perhaps the output filter condenser was going bad, a 120mf unit was shunted across that line with still no change. Out of curiosity, and before tearing into the chassis, the voltage was measured across the voltmeter with a Triplett VOM. The reading was 780 Volts!! The panel meter was still reading 520 volts.

MORAL: Check All of the simple things before getting out the soldering iron.

- WØDSW in SIDEBANDS

10,000 Alkire St.
Box 105, Route 1
Arvada, Colorado 80005
June 13, 1974

My dear Loretta,

For the last few days I have been aware of owing you a lett r, not having answered one I have before me, but I was shocked when you wrote that you were afraid I was offended with you.

That is impossible, I assure you.

I am writing this in a hurry, because I have two people waiting here to take this letter six miles to t e nearest town for mailing to you.

Tell me when you prefer I call you. Cheapest for me is the time before 8 A.M. daylight Mountain Stages time, which is before 10 o'clock New York dalight saving time, and I suppose the same time in Detroit. I can call you any time up to two hours or so before that.

Or whatever other time is convenient to you?

When you write, please give me your zip code there so the mail will go faster.

Things are looking up for me healthwise. But I have a hard battle ahead of me, and I know you will understand how I cannot travel about and enjoy the social life I'd like.

Once I gave Frank a receiver made by Drake Company, model 2B. He left it with Dick in Trenton at my suggestion. I was hoping his sick son Jerry could be shown how to use it and to listen to the hams. Perhaps Jack would care to twirl the dials for Jerry?

Best ever with you.

Love ever,

Your brother,

Jim

RADIO COMMUNICATION COMPANY

10,000 ALKIRE STREET

ARVADA, COLORADO 80002 303-466-3000

June 11, 1971

Dear Frank,

Thanks for your letter of the 3rd and for the enclosed articles on W.J and particularly for the picture of you and me taken about 1903.

I have arranged to have prints made of the old picture and will send you one when I get it. I'll have a negative too, in case you want more.

You must have told Mike that I got the invitation too late, of course. But I appreciate very much his thoughtfulness and his kindness in writing as he did. I'll write him through you, in reply.

You must have found another letter of mine on your return from the East.

Drop me a few lines when you get the time.

Best ever,

Your bro.

P.S. Helen may like the enclosed comb!

W.

Ask The News

WWJ Began Broadcasting as 'Station 8MK' in 1920

What year was WWJ first licensed as 8MK and then WBL? — Tate.

Sometime during the period of June, 1920, to July, 1921, The Detroit News station was licensed to operate under call letters 8MK. The records of the exact date have been lost in government files or have been destroyed.

But it was on Aug. 20, 1920, that 8MK began operation on a more or less experimental basis — broadcasting daily without publicity. After 11 days of operation, 8MK anounced that the local, state and national (congressional) elections would be broadcast. This was on Aug. 31.

On Sept. 1, 1920, The Detroit News publicized 8MK's operations for the first time. The announcement of the broadcasting of the election news contained this paragraph: "The sending of the election returns by The Detroit News radiophone Tuesday night was fraught with romance and must go down in the history of man's conquests of the elements as a gigantic step in his progress. In the four hours that the apparatus, set up in an out-of-the-way corner of The News Building, was hissing and whirring its message into space, few realized that a dream and prediction had come true. The news of the world was being given forth through this invisible trumpet to the waiting crowds in the unseen market place."

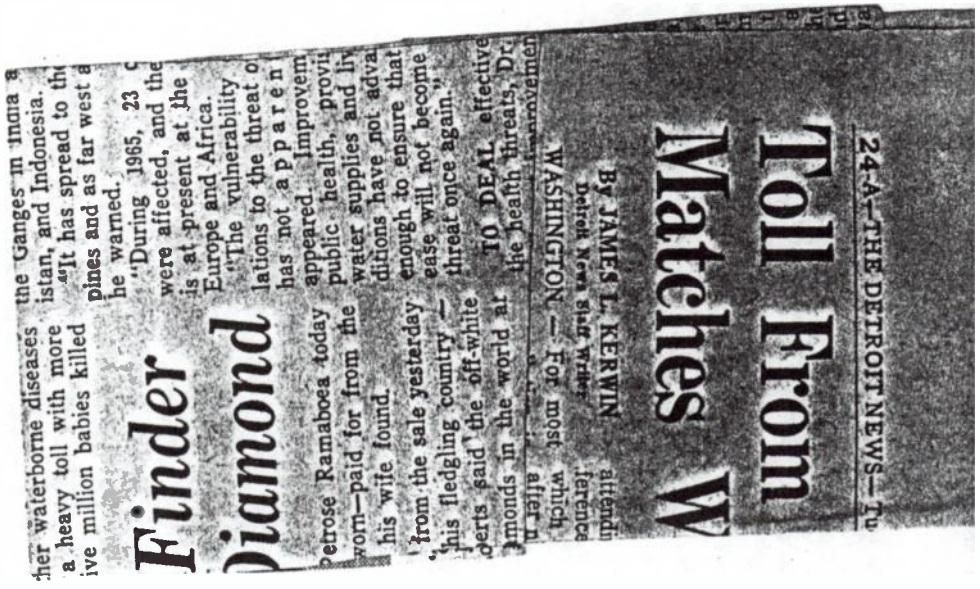
A story on page one of Sept. 1, 1920, announced that The Detroit News wireless service "for the benefit of wireless devotees of Detroit will be a regular part of The News service to the public. The service will start nightly at 8 o'clock and will run until 10. Late news developments will be flashed and between bulletins will be songs and musical selections."

The News also published on page one a questionnaire to "Operators of Wireless and Wireless Telephone Sets" asking if they had heard the election returns and music the previous Tuesday from 8:10 p.m. to midnight.

On Oct. 13, 1921, the first commercial license was issued to The Detroit News station under new call letters, WBL. It was on March 3, 1922, that the call letters, were changed to WWJ.

Where can I buy a Michigan State

known in boxing history as "The Battle



Recd 040769 JW

27209 W. SIX MILE ROAD,
DETROIT, MI 48240

AMERICAN RADIO RELAY LEAGUE
INCORPORATED

OFFICE OF THE
~~SECTION COMMUNICATIONS MANAGER~~

OSTA
OFFICIAL ORGAN

JOHN W.WILLIAMS,K8HND
22195 PARK STREET,
DEARBORN,MICH.48120.

APRIL 5,1969

DEAR JOHN:

ED KANE,W8LL WHO HAS BEEN A FRIEND SINCE 1919 WHEN HE WAS 8BA,SAYS THAT YOU ARE A BROTHER-IN-LAW OF FRANK LYONS,AND WOULD LIKE A COPY OF THE DETROIT RADIO ASS'N WRITE-UP,IN THE DARA BULLETIN FOR FEB'Y '69.

SO HERE IT IS. NOW IF YOU GET A CHANCE TO TALK TO FRANK LYONS,WHO I UNDERSTAND IS NOT AT ALL WELL,I'D LIKE THE FOLLOWING QUESTIONS ANSWERED, OR CONFIRMED. I'VE NEVER BEEN ABLE TO GET ANY INFORMATION FROM THE DETROIT NEWS,ABOUT THOMAS E.CLARK'S EARLY WIRELESS INSTALLATIONS,AND I DO NEED THIS INFORMATION FOR A WRITE-UP ON "GREAT LAKES WIRELESS STATIONS,1902--1925" THAT I'LL BE DOING IN A COUPLE OF MONTHS.

1 WHAT D & C SHIP WAS FIRST EQUIPPED WITH WIRELESS,BY THOMAS E.CLARK IN 1902,AND WHAT CALL LETTER IDENTIFICATION WAS USED ON THAT SHIP ?

(I'VE BEEN TOLD IT WAS THE CITY OF DETROIT II,BUT IT WAS NOT CONFIRMED YET,AND NO CALL LETTERS WERE MENTIONED.)

2 WHERE WAS THE SHORE WIRELESS STATION LOCATED,THAT WAS ESTABLISHED BY THOMAS E.CLARK IN DETROIT IN 1902,AND WHAT CALL LETTER IDENTIFICATION WAS USED AT THAT STATION THEN ?

(HAVE BEEN TOLD IT WAS AT BELLE ISLE,AND ALSO TOLD THAT IT WAS AT THE FOOT OF THIRD,AND NO CALL LETTERS WERE MENTIONED. AS I WAS BORN IN 1902,I WOULDN'T HAVE THIS KNOWLEDGE.)

3 WHAT YEAR WAS "DR",LATER WDR,WIRELESS STATION ESTABLISHED,AND AT WHAT LOCATION THAT YEAR.

(AGAIN A LOT OF ANSWERS;THE FOOT OF WOODWARD,THE FOOT OF THIRD,AND THE FOOT OF W.GD.BLVD,AND THE FOOT OF 12TH. OBVIOUSLY 3 OF THESE ARE WRONG.)

I STARTED WIRELESS AT 508 MACOMB STREET,NEAR THE ELMWOOD CEMETARY,IN 1914,WHEN I WAS 12 YEARS OLD,AND HAVE A GOOD MEMORY OF WHAT HAPPENED AFTER THAT;ALSO HAVE HAD ~~XXXXX~~ ACCESS TO RELIABLE INFORMATION,FROM 1912 ON.

I DO HOPE YOU CAN GET ME SOME ANSWERS ON THAT ERA BEFORE 1910,AND IF FRANK LYONS MIND IS STILL GOOD,HE SHOULD KNOW. I DO NOT KNOW HIS PHONE NUMBER,IF HE HAS ANY,AND DO NOT KNOW HIS ADDRESS. I DID KNOW MIKE A BIT BETTER,FROM CASS TECH 1916-1918,BUT AM UNDER THE IMPRESSION THAT MIKE IS DECEASED. I KNEW ABOUT THE "BISHOP" BIT.

73,

Fate W8FX

KE 7-2961.

I don't know where he got his information ??? Jack W.

WRH

PHYSICS BULLETIN

of the
American Association of Jesuit Scientists
(Central States Division)
St. Louis University, St. Louis, Missouri

Volume VI, Number 3 January-February 1927

$$1/f = 1/P + 1/p$$

(P, object distance; p, image distance; f, focal length). If the line be moved so as to cut the upward extension p', thus shifting the segment f to the outer side of the 120 degree angle, the expression becomes

$$1/P = 1/f + 1/p$$

Hence if the focal length of a convex lens (or concave mirror) be laid off on the bisector, a ruler moved to the point will show the "conjugate foci" on the sides. If P is assumed smaller than f, the latter automatically goes to an outer side and p on the other side is "virtual". The same holds for concave lenses and convex mirrors.

The "equivalent" of resistances in parallel or condensers in series is found by laying off the given pair on the outer sides, as the answer is always real. Using this with a third component the equivalent of 3 etc., can be found.

If the conjugate "p" of one lens has been determined, the effect of a second at a distance D from the first is found by taking (D - p) as "object" distance, noting whether this is plus or minus, that is real or virtual.

The "Law of Sines" furnishes the proof of the above equations.

A PLAN TO UTILIZE RADIO BROADCASTING TO HASTEN THE CONVERSION OF ASIA.

Mr. Michael D. Lyons, S.J.

It seems plausible that radio broadcasting could be used with excellent results now in the work of Christianizing the billion inhabitants of the continent of Asia.

The advantages of radio are chiefly these:

a.) Catholics should do for religion what the British are about to do in India for sanitation and hygiene and education. They are erecting two high-powered broadcasting stations, and intend to erect receiving sets for whole villages to listen to.

b.) The Intellectual Apostolate is needed badly now. If we get the leaders we shall easily get the masses. Radio will carry our message right into the palaces of even maharajahs and the leaders of the sannyasis.

c.) We cannot get enough nurses for the apostolate to the women, who are often enclosed and who offer a mighty obstacle to the conversion of the races,- at least for decades. Radio will carry nursery rhymes and medical advice and spiritual advice right into the zenanas.

d.) Countries now inaccessible, as Nepal, Tibet, etc., (which the present Holy Father desires evangelized now,) would have the word of God brought in past guards and sentries.

e.) One good speaker would do for a whole people. One priest learns Prabatiya, another Tibetan, etc., and each talks to one nation. The intellectual apostles at seminaries could fight the intellectuals of the other camp.

Programs,- just as they are now delivered in the West.

Stations with ranges of 300 miles radii would cost between $1000 and $5000, complete, omitting salaries of installers. If they are well placed they should reach nearly 100,000,000 souls each.

The rich, whom we seek to reach especially, can easily afford receiving sets. Europeans would be glad to hear us. There must be interest in radio in India, for already there are two stations each in Calcutta and Bombay and one each in Karachi and Madras, besides one in Burma and several in China and Japan.

Asia needs and can use broadcasters better than we can in the States, for here in the States the air is crowded with 600 Stations and Catholics are taken care of by 30,000 priests. If Asia is to receive a great increase of Christianity before it hardens we must act quickly, and use something the Lord has sent us,- radio.

Cost,- suppose that $3000 were allowed for each station, and $4000 for the travelling expenses and salary of a Catholic radio operator or engineer willing to sacrifice himself for the great work. The installation would then cost not over $25,000.

Financing. Money could easily be gotten in the United States from American Catholic and even non-Catholic radio fans. The novelty of the idea would appeal to their generosity. Some slogan as this could be used: "English Catholics pay the government for the privilege of listening in. You pay a fee of one dollar a year for the Asiatic stations in gratitude to God for your radio set." "Buy a machine gun for the New Crusade."

These stations could be erected in the following places:

1.) St. Mary's Seminary, Kurseong, Dargeeling, India.
2.) Shembaganur, Madura District, India.
3.) Catholic school, Agra, India.
4.) Father Simon Tang's mission, near Canton, China.
5.) Cathedral, Pekin, China.
6.) Catholic University, Tokyo, Japan.
7.) Ateneo, Philippine Islands.

These centers were selected because these missionaries would probably be very glad to have these stations. Kurseong should be the first, as it is the center for influence in Bhutan, Nepal, and Tibet.

The maintenance is very small. The greatest item is that of cost of an operator. Some Brothers could easily do this work in connection with seismographs and other scientific instruments.

A small station could be erected in Kurseong, at the cost of only $1000 or less, and be good for transmission of 75-750 miles, depending on the climate, direction, and factors at the receiving end.

SHORT WAVE RADIO TRANSMISSION.

Mr. John J. Newell, S.J.

It is the claim of Dr. Hoyt Taylor, chief of the naval research department at Bellevue, that the time will soon be here when messages by means of short wave transmission will be directed to far distant stations as accurately as a revolver shot. He bases this statement on careful and extensive experiments. He learned that the radio signal left the high frequency transmitter to travel at an angle to the roof of the earth from which it is reflected back to the earth upon an opposing diagonal of equal angle. That from which he considers the radio signal to reflect is a highly ionized bend, which is a good conductor of magnetic energy, called the Heaviside layer. The height of this ionized layer varies with the position of the sun. The secret of successful short wave transmission is to find by experience or experiment the right short wave to use for any operation. With a thousand or more amateur short-wave transmitters in this country all working for the common good it needs but a little cooperation on one's own part to find the right short waves for different operations. Taylor warns that a too low frequency wave will dissipate part of its energy by shooting through the air, piercing the Heaviside layer, and losing itself in space; the rest will expend itself in a short distance in ground waves. He also warns that a too high frequency wave will wander over the earth's surface at a low angle and be absorbed by earthly obstructions before it has reached and can be reflected from the Heaviside layer. One who is transmitting at midnight need only keep in mind that the Heaviside layer is about 175 miles up at that time. Then he will gage the distance to where he wishes to send and decide on the right wave length which will give him the right angle of reflection. Taylor takes into account, in short wave transmission, the ground wave which travels distances varying with the power of the transmitter. He explains away the "skipping distances" mystery of short wave signals by his theory of angle reflection. Around 2 o'clock in the morning he found the height of the layer to be 225 miles and in the day time to vary between 100 and 120 miles. What troubles him is the uncertainity of directivity, excessive radiation, and harmonics in the high frequency. For instance, to show the uncertainity of directivity, sometimes when the transmitter is pointed at Balboa, it is heard quite well in San Francisco, but does not reach its intended destination. Taylor recommends varying wave lengths slightly when results are not forthcoming.

ANNIVERSARY NUMBER

DETROIT RADIO NEWS

A PERIODICAL FOR DETROIT, TOLEDO AND NEARBY CITIES

VOL. 1. NO. 8 Saturday, October 30th, 1920. PRICE 10 cents

ELECTION RESULTS

The ten men, as elected at the regular meeting of the D. R. A. are: Ed. Boyes, G. Lewis Carter, Ed. Clark, Clyde E. Darr, Cyrus C. Jenks, C. W. Lucas, F. E. Lyons, M. D. Lyons, Theo. Schmalzriedt Jr., and Norman Schlaack. This board first met on Sept. 30, in Mr. Jenks' office. At this meeting the following officers were elected:

President—Clyde E. Darr.
Vice-president—M. D. Lyons.
Secretary—Ed. Clark.
Treasurer—C. W. Lucas.

The committees are as follows:

Chairman Traffic Comm., Mr. Clyde E. Darr.

Chairman Technical and Educational Comm., Mr. M. D. Lyons.

Chairman Membership Comm., Mr. Ed. Clark.

Chairman Finance Comm., Mr. C. W. Lucas.

Chairman Publication Comm., Mr. Cyrus C. Jenks.

Chairman Program and Entertainment Comm., Mr. F. E. Lyons.

Chairman House Comm., Mr. Ed. Boyes.

SUCCESS

The club paper is paying for itself to a great extent by its advertising. The subscription list is rapidly increasing by the growing number of out-of-town readers. The advertisers are satisfied with the results. The whole business is undeniably thriving. The July issue practically paid for itself. The future indeed looks well. That is something it did not do at its conception.

It is with joy that the management makes this announcement. The fact that it is a success means that the grade of the articles will shortly be better. The management only asks the readers to watch and it will do the rest.

The columns of this paper will always be open to the contributions of readers. This paper, in short, will be just what a paper can be to its readers, the paid organ of the readers' expressions and the paid advocate of the readers' rights, and the aid dessiminator of knowledge.

M. D. L.

MEMORIES

Do you remember:

When, away back in '13 or '14, or maybe before that, you made that first carbon detector and how you sent for that ten cent crystal detector so popular then?

How excited you were when you heard the spark coil in the next block struggling to send "CQ" or "N.A.A." or something, you knew not what, neither did he?

How you decided to have a nice coil all of your own and sneaked a unit out of father's Ford coil box and what he said when she ran on three legs in consequence?

When you first experimented with wireless telephone by connecting a telephone transmitter in series between the coil and aerial? The fellows all heard you all right, but it was around the outside.

When you received time signals the first time, and how you had to hold your breath in order to hear them? (Many of us do that now, some for that reason and others to keep the last three or four amplifier bulbs frmo "falling out".)

When your new ¼ K.W. transformer came and you put linseed oil, vaseline, cup grease or goodness knows what not, on the rotary points so she would crack louder and scare people?

How you used to draw diagrams of all manner of sets in school and how teacher used to tell you that it would be much more to your benefit to be working algebra or to be reading of Caesar's exploits in Gaul? It may be that she was right, but I still remain among the unconvinced.

When you connected up that first bulb and how W.O.K., W.D.R., V.B.E. and W.C.X. came in?

When there was not a 500 cycle set on the Great Lakes (except N.A.J.) and nearly all the ships used the Marconi 60 or 120 cycle sets or the Kilbourne-Clark installations?

Indeed we do!

Those were the good old days.

(Ralph Sayles 8.I.Z.

QRU? is now obsolete. QRU means "I have nothing to transmitt." QTC? means "Have you anything to transmitt?" QTC means "I have something to transmitt."

MICHAEL DELISLE LYONS

STARTED WJR

MIKE'S BROTHER "FRANK" (FRANCIS EDWARD)

MICHAEL DELISLE LYONS

C. W.

(By the Old Man's Son.)

Sa, Fellows; You have all no doubt read about my dads troubles in Q.S.T. every month and by the way he talks, you'd think he was the only one in radio that has trials and tribulations. 'Tis not so Dad, not so. You see its all like this. My dad is big, and so is Q.S.T., and I'm growing, just like the D.R.N., and if I can keep up with this paer I'll soon be bigger than the O.M.

Honest fellas, I once was considered sane, in fact, always was until a guy showed me how to make a key shimmy one finger, yessir, just like our Club Pres. uses a tyewriter, (of course this is confidential stuff) and his teaching Me how to punch a key has cost me my respect and salary for the next two years to come, say nothing about my living expenses during that time.

No, Annette, C. W. doesn't mean Charming Widows or Canadian Whiskey or anything like that, it simply means Continuous War, 'cause I've sure had it ever since Gov. Darr spoke into his radiophone with a gentle "Hello, Hello, this is 8CB talking," and that music! Oh boy! that was sure death to the bat that the wife had been coaxing me to get for the last month, the one with filet lace, red streamers an' everything. But lissen fellas, the price of that hat bought me a second-hand motor, 220v-DC, and with the aid of a little diplomacy I was able to "borrow" a ¼-horse motor with which to run the 220v one, backwards. They say that the reason it should be run backwards is so that it will never be able to catch up with itself again (just like my finances). Well I coupled these trusty steeds of radio together, and honest fellas, it sounded just like our subscription Ed's. Ford. The neighbors must've sure thought I was trying to raise China if noise has anything to do with it. And gosh the dishes in the pantry downstairs had to get playful and tried to Fox-trot a la 1750 rpm, and suffered thereby, so did I, 'cause that meant that my Ingersoll ticker was going in hock.

Honestly now, I couldn't afford to lose much time worrying about that because I had a "C. W." set to build and as soon as the wife-war was over I continued construction. The second spasm wasn't really my fault either, but here was the trouble, I needed a cardboard tube 5 inches in diameter and the only one in the place was holding some oatmeal, but why care I, says I, and throws the kid's grub in the back yard, and goes upstairs again with the tube, and while winding that tube the neighbor's chickens came over and ate the oatmeal—so far, so good—but those darned bipeds didn't go home then like good sensible company should, but they put me right on the firing line again by starting in on the garden seeds for dessert, and when the lovin' wife saw that she threatened desertion on me,—but by the time she was through storming', I had my two inducances all wound.

Now just to show how honest I am fellas, I'll admit that I'm the cause of the next outburst. I needed a panel to mount the outfit on, and the best thing in the house for that purpose was friend wife's breadboard. Like a gentleman I asked her if I could just borrow it for a little while, and as she had cooled down a bit she said I could use it, if I wouldn't spoil it. Oh no, says I, and hauls it up-stairs. Now, when I said I wouldn't spoil it, I meant it all in good faith, because I didn't realize that it was necessary to cut holes in it for a variable condenser, M. A. meter, a couple of knobs, etc. I no sooner got the stuff mounted nicely on the panel "DeLuxe", when my genteel half comes up-stairs to sweep the floor, but when she saw my scientific means of breadboard conversion, Oh Boy, she forgot all about sweeping the floor and made a clean sweep of me and mine. Out of necessity I retreated to the basement where I stayed until I was sure the QRM was all over, and while she was out in the yard repairing the garden, I again advances to the pride of my heart and pocketbook and connects same to aerial and ground, then I tested and waited—and tested again; each time I'd holler into the transmitter, "hullo—hullo—this is me talking in my radiophone, QRK? pse, QSA? QSB?." I finaly recovers my calmness and notes that the filament was hungry for currents, and so I feeds 'em to her; but sa om, the more juice I'd feed her, the slower the motor would run and she was gradually turning into an electric stove. Now that'll be all right this winter for me to warm my feet on, but I can't see that stuff this weather.

Well in conclusion—I've talked into that transmitter until I Was blue in the face, but with what results, I'd get so mad from thinking what rotten receiving sets some fellas must have, that I finally announced the fact that I owned a CW set to everyone in this town that I knew, by telephone,—You said it OM the "bell" variety. CUL OM.

———o———

It has been hinted that Herb Tank (8AR), who is operating Ford's station at Northville, has become greatly interested in chickens raised in that thriving town.

DETROIT RADIO NEWS

Published under the auspices of
The Detroit Radio Association.
Cyrus C. Jenks, Chairman
Publication Commmittee
433 Book Bldg. Cherry 2369.
M. D. Lyons, Editor.
463 Green Ave. Cedar 3292-W.
F. E. Lyons, Classified Ads. and Calls.
Ed. H. Boyes, Marine Editor. 170 Willis.
Theo. Schmalzriedt, Subscription Manager.
2410 West Fort Street
Cedar 98.
Subscription Rate, One Dollar a Year.

Vol. 1. OCTOBER 30th, 1920 No. 8

ONE CANDLE ON OUR BIRTHDAY CAKE

The first and most crucial year of the Detroit Radio Association has passed and, in looking back from the conception of our club, we find that time has dealt kindly with us. We have prospered more favorably than the most sanguine of us had expected. The energy and time utilized has reaped a reward in being able to pass successfully through the first year. We have now had the experience to direct our future welfare with more understanding and while our aims are high, we believe our club is made up of the right material to bring success.

We must have the spirit of co-operation, that is the one salient quality that our organization needs, each member can be a help on a millstone to the club. Each and every one of us can help in some way to better the club and, in so doing, he not only helps himself but all the members of the association.

I have felt that many of us lack interest; possibly I am wrong, but at any rate, we have not suffrciently enthused some members to bring out their co-operation.

The Radio Art is now in a stage of transition and much can be gained through our organization if we have the interest to attend the meetings and do our share in developing the necessary steps to help ourselves over the stumbling blocks.

Our Board of Directors have been handicaped seriously through the necessary absence of several of its members and, while it hrtwe some more work on the directors present, I feel that we have done well.

Let us start our new year with a bang; with a determination that we are going to be a bigger, better organization. We have much room for improvement. Personally, I feel that we have all the attributes required, if each one will offer his services and then stick to his obligations.

Come, now, all you Kilowatters, give us a little of your high frequency and push the D. R. A. along in keeping the high-powered club we are and are always going to be.

I want to extend my gratitude and thanks to everyone of you who has made possible the D. R. A. and I know the second year is going to bring to life some of the real pioneer work that has been done durin gthe first.

CLYDE E. DARR,
President, D. R. A.

—o—

A NOVEL ANTENNA

With the advent of undamped wave transmitters, new circuits have been revised which would not have been practical with spark transmitters. The multi-tuned antenna as now used at WII (ex-NFF) and at NSF is he latest innovation depending upon continuous wave.

The multi-tuned antenna may be understood readily by imagining a number of single turn loops in line and coupled by auto-transformers. With one of these the efficiency is heightened greatly. An article in the Wireless Age for August explains this invention well.

The only adjustments on this type of antenna are to get the loops in resonance by varying the auto-transformer's inductance until the ammeter at the base shows maximum radiatio. Each loop will radiate searately when adjusted to the same period of oscillations.

The results that NSF gets on 250 meters and about one half kilowatt input speaks well for the amateur who will build this type of antenna. The increased cost of a motor generator and bulbs will in many cases be compensated for by the cheaper and more reliable antenna. An amateur can secure the same results from a multi-tuned antenna 30 feet high and 200 feet long that he can secure from a very high and expensive radial. A low antenna has a much better chance of staying up in a storm than a high one.

ANONYMOUS.

—o—

NOTICE

If you want your Call Letters don't forget to pay your License renewal.

Classified Ads.

FOR SALE.—Cabinet Receiver that can't be beat. Built and still in use by 8GR. Mahogany cabinet; genuine hard rubber panel, 10 in. by 22 in.; Mounting-Clapp Eastham, large type De Luxe tuner, three variable condensors loading coil, crystal detector, high frequency buzzer, vacuum tube socket, rheostat and Weston volt meter, scales 0 to 7.5 and 0 to .75. Five Western electric telephone switches, Weston hard rubber binding posts. Cost $85.00 for material alone. Price $60.00 Terms to reliable party.—G. H. Norris, Michigan State Telephone Co.

* * *

COMPLETE RECEIVING SET for sale. Contains Deforest three coil-geared honeycomb mounting, .001 variable condensor, .0005 variable condensor, .0035 variable condensor, Burgess "B" battery, V.T. base 10 ohm rheostat, 2-L25 and one each of the L-100, 250, 400 and 600 coils. —Lester Bather 68 E. Warren; Glendale

* * *

1558.

FOR SALE.--One piece of Bakelite—Grade "M" satin finish; 12 in. by 18 in. by 3-16 in. thick. Price $1.25.—L. Bather, 68 E. Warren Ave.; Glendale 1558.

Local Calls

The following list of calls is the most complete one ever published for Detroit and vicinity. It will probably not appear again, but will be supplemented from time to time. Amateurs, whose calls do not apear on this list, will please notify the editor.

8AB—J. I. Bell, 819 Wall St., Port Huron, Mich.
8AG—Lloyd McGrow, 312 Paarker Ave., Toledo, Ohio.
8AI—John Johnson, 2240 Lawrence Ave., Toledo, Ohio.
8AM—Francis Lyons, 463 Green Ave., Detroit, Mich.
8AN—Walter Kleinert, 2055 W. Grand Blvd., Detroit, Mich.
8AO—Ed. Clark, 468 Epworth Blvd., Detroit, Mich.
8AQ—Ed. Boyes, 170 Willis Ave., Detroit, Mich.
8AR—Herbert Tank, 356 Ferndale Ave., Detroit, Mich.
8AS—Edw. Weinke, 406 Boston Blvd., Detroit, Mich.
8AT—Frank Henry, Jr., 308 Montgomery Ave., Detroit, Mich.
8AU F. Murphy, 150 Hogarth, Detroit, Mich.
8BA—Ed. Koehn, 989 Meldreum Ave., Detroit, Mich.
8BF—Geo. Wedemeyer, 511 E. Kingsley Ave., Ann Harbor, Mich.
8BJ—Roy Herschelman, 325 Cleveland Ave., Detroit, Mich.
8BO—Roy Chapin, (Formerly 8ACN), 358 Helen Ave., Detroit, Mich.
8BP—C. Pardridge, 521 Nimons St., Saginaw, Mich.
8BR—H. Hardesty, 396 Monteray Ave., Detroit, Mich.
8BZ—Gerrold Flower, 65 Hooker Ave., Detroit, Mich.
8CA—Walter McKelvey, 802 Trumbull Ave., Detroit, Mich.
8CB—Clyde E. Darr, 137 Hill Ave., Detroit, Mich.
8DG—F. Johnston, 1335 Hill St., Ann Arbor, Mich.
8EJ—P. Schlotterbeck, 1907 Washtenaw Ave., Ann Arbor, Mich.
8FA—Arth. Stillwagen, 312 Jefferson Ave., Ann Arbor, Mich.
8GR—Geo. Norris, 1784 Brush St., Detroit, Mich.
8KA—Russel Herschelmann, 325 Cleveland Ave., Detroit, Mich.
8KBKeith McGary, 451 Avery Ave., Detroit, Mich.
8KH—B. Fitzgerald, 81 obart Ave., Detroit, Mich.
8KJ—Ed. DeHnsteadt, 383 McDougall Ave., Detroit, Mich.
8KM—Geo. Belprez, 708 Belvidere Ave., Detroit, Mich.
8LL—Ed. Ryan, 2105 Senator Ave., Detroit, Mich.
8MC—M. C. Bartlett, 180 Parker Ave., Detroit, Mich.
8MG—Warren Updike, 256 Margurate Ave., Detroit, Mich.
8MK—Detroit News (Fone), Cor. Second and Lafayette Ave., Detroit, Mich.
8MO—Fred. Ploetz, 754 Grand River Ave., Detroit, Mich.
8MP—Edwin Hopponen, 46 Euclid Ave., Detroit, Mich.
8MY—David G. Careter, Rathbone Pl., Grosse Pointe, Mich.
8NL—Jas. Dunn, 523 Townsend Ave., Detroit, Mich.
8OH—Norman Anger, 385 Ferdinand Ave., Detroit, Mich.
8OJ—Narman Schlaack, Birmingham, Mich.
8OK—Geo. L. Stevenson, 205 Davison Ave., Detroit, Mich.

MIKES BROTHER FRANK

NOW WWJ IN DETROIT

LOCAL CALLS (Continued)

8OL—Theo. Schmalzriedt Jr., 2410 W. Fort St., Detroit, Mich.
8OR—Ed. Gillam, 91 Calvert Ave., Detroit, Mich.
8OZ—Robt. Leacock, 221 Gratiot Ave., Detroit, Mich.

8QN—Fred Collins, 150 Puriton Ave., Highland Park, Mich.
8QY—E. A. White, 102½ Hill St., Ann Arbor, Mich.

8SD—Lewis Williams, 248 Tireman Ave., Detroit, Mich.
8SL—W. Clark, 190 Avolon Ave., Highland Park, Mich.
8SU—R. Haggerty, 56 Calumet Ave., Detroit, Mich.
8SY—Norman Ballbach, 957 Concord Ave., Detroit, Mich.

8UJ—Clarence R. Witte, 174 Leverenz Ave., Detroit, Mich.
8UU—John A. Smith, 41 Seward Ave., Detroit, Mich.
8UX—Calvin Cary, 1928 Grand River Ave., Detroit, Mich.

8VD—Ed. Mossney, 486 24th St., Detroit, Mich.

8WA—Albert Allen, 435 Bagg St., Detroit, Mich.
8WN—Clarence Luebs, 231 Grand Ave. W., Highland Park, Mich.
8WV—Wm. Fobare, 390 E. Congress St., Detroit, Mich.

8XD—(KDEN— Fordson Co., Dearborn, Mich.
8XL—(KDEP) Fordson Co., Northville, Mich.

8YE—Cass Tech. High School, Detroit, Mich. (Formerly 8FX.)

8ZN—Detroit Junior College, Detroit, Mich.

8ABK—Art. Johnson, Jr., 115 Owen Ave., Detroit, Mich.
8ABN—W. E. Landis, Jr., 380½ Euclid Ave., Detroit, Mich.
8ABR—G. Rousten, 637 Chalmers Ave., Detroit, Mich.

8ADY—Barton Dreyer, 364 Montclair Ave., Detroit, Mich.

8AEA—Benj. Gurr, 227 Louisiana Ave., Detroit, Mich.
8AEL—Cryus C. Jenks, 486 Blaine Ave., Detroit, Mich.
8AEM—C. W. Lucas, 247 Schoemaker Ave., Detroit, Mich.

8AFL—R. Osborn, 805 McLellen Ave., Detroit, Mich.

8AGS—Ed. Weisel, 1018 Cabot St., Detroit, Mich.

8AHA—E. W. Reeve, Ann Arbor, Mich.

8AIA—F. Schiestel, 49 Richter Ave., Detroit, Mich.

8AKR—Detroit Radio Lab., 1137 Gratiot Ave., Detroit, Mich.

Canadian Stations.

3AA—J. Lynch, 161 Jeanette Ave., Windsor, Ont.

3BU—C. Gignac, 445 Goyeau Ave., Windsor, Ont.

3DH—W. J. Carter, 34 Niagara St., Windsor, Ont.
3DM—C. H. Oaks, 110 Caron Ave., Windsor, Ont.

3EG—Wm. Mainguy, 171 Victoria Rd., Windsor, Ont.
3EH—F. Stodgell, 106 Devonshire Rd., Windsor, Ont.

A NOVEL LOOP TRANSMITTER

The Bureau of Standards, after conducting tests on the comparative merits of loops and aerial antennæ, summarize their report by stating that loop antennæ approach condenser aerials in efficiency only when they approach condenser antennæ in seize. For this reason the talk about the substitution of loops or subterranean antennæ for the high condenser aerials never materialized in practical transmitters except when the loops were of the seize of the condenser antennæ.

Amateurs should always build their loop antennæ as big as an ordinary condenser aerial if they expect the same results. The chief advantage of a loop lies in its directional effects, which is very great. Thus, in receiving, a loop with a suitable amplifier may be used for direction finding.

The writer has heard of a type of loop which he believes very suitable for amateur transmitters. Before describing it he will first recall to mind the prniciples and theories invilved.

(Continued on Page 6)

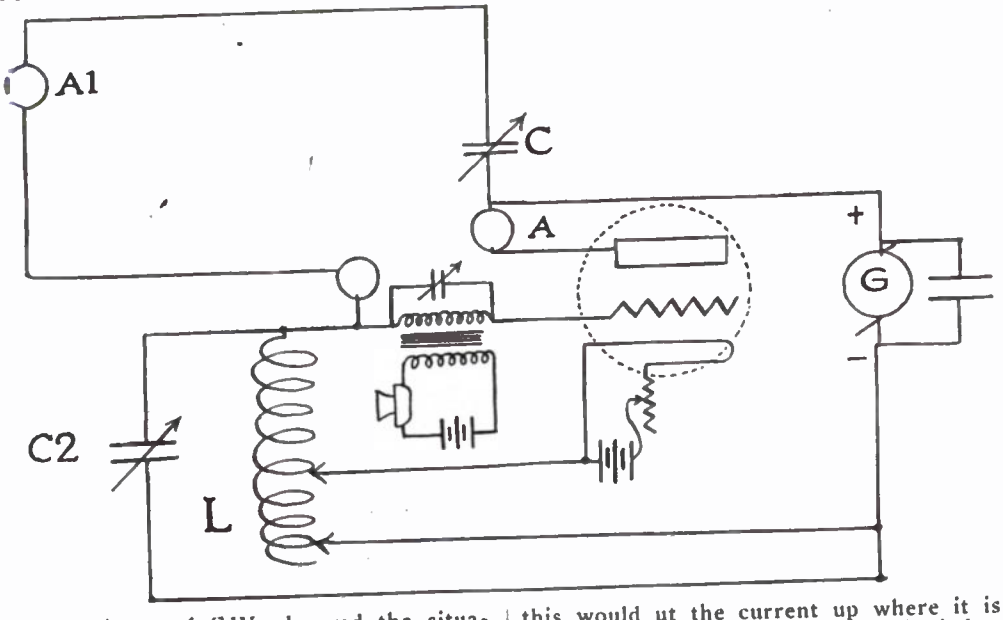
A NOVEL LOOP TRANSMITTER—(CONTINUED)

In any condenser aerial, which is the type generally used, energy is radiated in two forms: Electro-magnetic and electro-static. The electro-magnetic energy is radiated by the current, and, consequently, is heaviest where the current is the heaviest, i.e., near the inductance, which should be at the base. The electro-static energy is a result of the voltage. The pressure being highest at the open end of the antennæ, the electro-static strain is the greatest there. Thus, the energy is radiated in these two forms, which are at right angles to one another.

In the common antennæ, the voltage being high, the electro-static component of the radiation is considerable. Thus it will be seen that the current is at a maximum at the base and is evenly decreasing up the antennæ, radiating electro-magnetic energy at the base best, and not at all at the extremity of the open end. It will be seen that the problem is to get the current up in the air where it will travel to the receptor. In ordinary spark transmitters coupled with condenser aerials nothing further can be done than to make the aerial vertical.

One amateur who uses C.W. exclusively used an aerial only 25 feet high and 70 feet long. After using this for a while he added what he called a "pig tail," which consisted of a wire dropping off the open end of his antennæ. This did no more than to bring the place at which the current is one half the value it is at the base higher into the air. The radiated wave is correspondingly strengthened by this raising of the current. It was also lengthened. While the signals were stronger he could have had the same results by simply lengthening his aerial or raising it. The current would then have been higher into the air.

In radio circuits the current is strongest in the inductances and the pressure is strongest across the condensers. Thus, one might ask: Why not, in C.W., have a loop antennæ which has a high inductance and couple it to an oscillator by a capacity-coupling? Thus the current wiuld be at its maximum in the antennæ and the pressure at a maximum in the capacity-coupling. Instead of having the current at a maximum near the ground, where it radiates the least, as the ordinary sets have,



The advent of C.W. changed the situation. In this the current is heavy and the pressure is comparatively low. Accordingly, the electro-magnetic component of the radiated wave is correspondingly heavier. The electro-static component may seem negligible.

this would ut the current up where it is the most efficient—in the air. While it has been used—so far as the writer knows—only at the Glenn L. Martin Co. station in Cleveland (8DF), the theory and the little experimenting that has been done seems so promising that it is well worth the attention of any real radio experimenter.

(Continued on Page 7)

A NOVEL LOOP TRANSMITTER—(CONTINUED)

A diagram which the writer was shown by Mr. M. D. Lyons, instructor in radio at Cass Technical School, shows how this novel idea may be tried out.

In accofpanying diagram 1, let us place H.W. Ammeter A in series with the plate. We will suppose H.W. Ammeter A at extreme end of loop, and C a variable condenser.

Circuit L, C2 are adjusted to 200 metres, as is L, C, and loop circuit. C is set at 0 degrees, current read in ammeter A is, say, 2 amps.

C is the nturned until falls to one half its value automatically the current in A1 will raise to its maximum, and the loop will then be radiating its largest current.

In practice it is not parctical to place A1 at extreme end of loop, and this instrument may be discarded and only A used.

The best transmission is accomplished is the plane of the loop.

Slightly better work had been done by grounding the base of the loop.

Bear in mind that when A is at its maximum the loop is not radiating; and when A is at one half its original value the radiation is at its maximum.

Those experimenting with this type of transmitter will please inform Technical Committee of their results.

SINE D. Y.

A youthful passenger approached a hard-boiled gob who was peeling spuds for chow. Cautiously scanning the horizon for QRM, he finally turned to the gob.

"Say," he whispered, "what did you do that you have to sit there peeling potatoes?"

"Well, sonny," answered Jack, "you see, 'twas like this. I stayed out all last night and the captain made me peel potatoes."

"UHU H," returned the youngster, in hushed tones, "I thought you did something naughty."

* * *

Who has heard 8AQ—another bear that sleeps all through the slack season? Will someone pleez wake the liddle poy up?

DETROIT RADIO NEWS

A PERIODICAL FOR DETROIT, TOLEDO AND NEARBY CITIES

VOL. 1. NO. 7 Tuesday, August 17th, 1920. PRICE 10 cents

Radio Enthusiasts Have Outing

The success of the outing on Sunday, August 1st, can be proved by any of the fellows who paid the three cents toll charge to cross the Grosse Ile bridge.

President Darr's mammoth green monster of the road was heavily laden with radio apparatus and lousy with radio bugs. It carried everything from Updike's soft coal detector to Mr. Darr's five K.W. Amrad coil. The wild, raging Lyons carried a two-step amplifier of foreign make—namely, Cleveland. Ed. Ryan carried a 500-cycle three-inch open core transformer and was capable of transmitting to Messrs. Darr and Lyons. Teddy Schmalzriedt, the guy we are always bawling out for failing to receive the paper on time, was also there.

F. E. Lyons, our member who is so embarrassed by the fair sex, had a thrilling experience. He had just finished tuning his receiver when a beautifully-painted "queen" waltzed up out of the crowd and sweetly asked "his honor" what a wireless station sounded like. Of course Frank couldn't refuse, and so he very gently pressed the phones against the hair-covered ears of ye fair maiden, and, Oh, Boy! he could almost feel that dollar slipping out of his pocket and into the cash drawer of the marriage license bureau.

His dreams of a future assistant radio operator, under the name of Mrs. F. E. were heartlessly shattered when she turned to a gentleman in the crowd and said: "Hubby, how do I look with these things on my head?"

Yours truly and company left Detroit with a Ford coil, a one-step amplifier and a big head, caused from D. P. W.'s muddy water. (?)—the latter was responsible for our installing the set as far as possible from the others. Now let me explain that the only reason we carried the set was an excuse so as Friend Wife would not let her poor, hen-pecked hubby get into the fresh air—and, goodness knows, he needed it. Assembling the set was only a bluff, and as soon as same was installed we slumbered off the effects of Detroit's poor water. Just about 3PX we were suddenly awakened by a terrible thundering noise emanating from the Henry in which our set was installed. Sure enough, it was that Amrad coil pounding away at 20 per. We, being affected with Radioitis, naturally had to see the Amrad set, and so, dismantling ours, and breaking two tubes in the bargain, we pushed the flivver the four necessary miles to said station and got a warm reception by accidentally standing on Mr. Darr's counterpoise. Demanding more sleep, and unable to get it because of the Amrad boiler factory, we left the field for home, sweet home for the needed rest. And when we got home, didn't we get it? I'll say not. The wife greeted me thusly: "Hurry up, Clare, get on some decent clothes; the Jones's are coming. Hurry to the store for ice cream, and don't take all day about it!"

FRANCIS "FRANK" EDWARD LYONS (MIKE'S BROTHER)

Ed Clark Getting Ruffed Up

Ed. Clark, treasurer of the Detroit Radio Association, is operating on the City of Mackinac II. (WEB) this season.

The great lakes have not been particularly calm this year, and our "cash slinger" has been on the ups and downs occasionally. When asked if he had been sea-sick, he admitted truthfully (as all operators do) that the majority of the crew had hung over the buckets occasionally; but, sailor-like, he declared that he had kept an even keel through the worst of it.

Although he has been treated roughly, he is determined to finish the season on the "Old Mack."

Cause of 8MP'S Silence

While down to see some friends off to Buffalo, Ed. Clark and F. Lyons stood on the dock and watched "Detroit's Pride" pull out, meanwhile admiring the beauty and graceful lines of the ship, and, as those two pairs of eyes gazed upon the slowly-moving palace, they were attracted and almost blinded by a brilliant headpiece, and, as the windows of their respective souls became accustomed to the blinding glare, they made out the word "Wireless," and, in scrutinizing the handsome wearer, they found that amidst all the glory and brass buttons of the radio operator stood none other than their little heard from and seemingly long lost friend, 8MP.

After the ship had swung out, removing this wondrous vision from their sight, Ed. Clark, who, in all his service as an operator on the D. & C. liners, had never boarded a ship under any insignia, solemnly swore he would purchase a like crown immediately.

Radiophones at Ford's

The Fordson Tractor Co. has been experimenting for some time with radio phones as an aid to inter-factory communication. Stations have been installed at both the Dearborn and Northville plants. Mr. Chambers is operating the Dearborn station, and Mr. H. Tank, a Detroit Radio Association member, is operating the Northville station.

They may be heard at any time of day (and frequently in the evening) on a wave length varying from 200 to 550 meters.

Thus far the stations have proved promising.

The Old Man's Son

A sequel to the "Old Man" stories of "OST" fame will be published in the September issue of The Detroit Radio News, under the caption of "The Old Man's Son." These stories will be published from time to time. Don't miss any.

The only thing that keeps some Canucks from getting transmitting licenses is the H. C. of L. (high cost of licenses). P.S.—They cost a dollar.

Sa Mable

Dear Mabel: I sit down an rite u about mi xperenses in a guy frend of mines wireless stashon. Wel Mabel take it fro m me but it aint wirles fer ther be more wires hangin aroun ther then I ever seen in a jewelry shop on krismos. Wel this feller put somethin on mi bean that reseibled a kouple of shoe shine boxes boulted to a watch spring, next he pushes a switch not the kind u use in ur hair mabel but the kind they turn on and off lektrik tes. Wel i neverseen such an xtravagent guy Mabel fer he lit three other lites besides the one that lit up the room an to think that our landladi only lets us have not moren two at wuns. Wel then we her a coupl o bugs in the cans he put on mi ears, they seemed awful anxus to get out mabel so i tuk off them things an began to take one of them apart to let the bugs things out wen mi frend grabbed mi a m and told me that wasent bugs it was wir es signals so i put em on again and sur enuf it wus, i beleived it maybel bekus i do it like to call no one a liar whots bigger n me. then he luked wild an sed "wo 1HAM is callin me n IBS is telen me th t 7NUT wants to tell 8HOG he wants him t write him. Wel i deklar he seys an the he puls on a lever and starts the vakum kleaner. ah maybel i enjoyed the breez from it and put mi feet on the box nex t the weel to cool em off then mi fren pushes some thing and ge whiskers maybe somethin grabbed me bi mi legs and made me turn a komplet sumersalt and land flat on the floor with the chair over me. Then i herd a loud bang and i jumped up an Grabbed mi hat an ran out an mi frend was yelling after me wanten to know what wuz wrong but i kept on running and yelled back that if he had ani more kanned litenin not to unkover it while i wuz aroun, wel maybel i seen enuff of wirles and wil not tri ani more to see another station. Wel gud buy for this time, Your hubuy in futur

B. Vgg. (C. F. Matgan.)

Koch would like to know if that movie machine at the last meeting lit by VT's.

* * *

Heard at the last meeting—Darr: "8MG has a good tone now."

Mike Lyons: "Yes, but does he ever use it?"

* * *

The toughest job of curing ever attempted in Detroit was that of the originator of that call C.E.A. Old HK was a close second. At best it was—and is—a poor job.

DETROIT RADIO NEWS

Established 1920.

Published under the auspices of
The Detroit Radio Association.
Cyrus C. Jenks, Chairman
Publication Commmittee and Manager.
433 Book Bldg. Cherry 2369.
M. D. Lyons, Editor.
463 Garden Ave. Cedar 3292-W.
F. E. Lyons, Classified Ads. and Calls.
Ed. H. Boyes, Marine Editor. 170 Willis.
Theo. Schnedriedt, Subscription Manager.
Cedar 98.
W. J. Carter, Canadian Representative.
Windsor 2168-W.
Subscription Rate, One Dollar a Year.

Vol. 1 AUGUST 17th, 1920. No. 7

Rivalry

Of keen interest to the amateurs of Detroit is the news that Cleveland now has a Radio Experimenters' Association. Also, the amateurs situated in the City of the Straits are surprised to learn that the radioists in the Forest City have many good radiophones and undamped telegraph transmitters. The Detroiters begin to think that the should get a move on or else the city will be a backwoods city in radio development.

An amateur of Cleveland, after returning from a visit to Detroit, told the amateurs who were assembled to form a club that Detroit was far advanced in methods of controlling local traffic. He was impressed by the utter freedom from interference that the Detroiters enjoyed after 10 o'clock in the evening. Since ths was accomplished by the Detroit Radio Association, he asked why Cleveland could not do the same thing. These assembled amateurs felt ashamed of the fact that Detroit was leading in radio traffic, as in population, and immediately set the foundations for a club.

Occasionally the editor of "QST" has written sarcastic remarks about Cleveland for his esteemed periodical. Detroit's reputation for being a good city for relay work was never disputed in that magazine. This had the desired effect in Cleveland. The prominent amateurs have since been busy on some excellent long distance spark and bulb transmitters for the coming fall relay work.

What will this growing rivalry lead to? Rivalry was the cause of the great world war, according to some people. Rivalry has wrecked empires. However, it has its good effects also. Many a nation has advanced far in the scale of civilization because another has challenged its claim to leadership in arts and sciences. In the same manner individuals have been spurred on to higher goals by the examples of others.

Excluding the possibility of physical combat, since the rival cities are separated by some 85 miles of the broad Lake Erie, there can be naught but good results from the rivalry. Therefore, let us hope that in the future there will be plenty of friendly rivalry between Detroit and Cleveland.

Tips For the Op Etc

1. Five-minute sending at 20 words per minute is the speed test transmitted by that supposedly treacherous little instrument called the "Omnigraph." Don't let it scare you. Being a mechanical instrument, its sending is mechanically **perfect.** Even, unbroken transmitting is what you will get. Practise up for it.

2. All dope transmitted is **practical** and tests your receiving ability to the "T."

3. The radio examination includes **practical** as well as theoretical questions. Horse sense will help the most difficult practical questions. Tell what you would do and forget about what the other fellow might do or has done.

4. Draw all diagrams of circuits neatly, and leave out no small detail. The little things are what count.

5. Study circuits and theory of modern standard apparatus. This is usually Marconi apparatus.

Be able to give good, practical dope on care and maintenance of primary apparatus such as motors, generator, storage batteries, protected devices, etc.

6. Be absolutely sure that you are thoroughly acquainted with the U.S. rules and regulations governing radio communications. If you fail once, don't give up the ship—try again.

E. G. BOYES.

Will alternating currents affect near beer like raisins do?

Ship Operator Writes

The following is a letter written to Cyrus C. Jenks from on board a shipping board vessel about to dock at Nantes, France. The author is an old "8" ham, Fritz Lathrop, formerly of Ann Arbor.

As I have a few minutes before going on duty, I will write you something in the shape of a letter. Hoffman is on the job, burning up the juice I just got through putting in the batteries. I might say just a few words regarding the outfit we have to play with. But under no circumstances are they to be words of praise, because no English set was ever worth praising. The whole thing is British throughout except the emergency set, which is real, honest-to-goodness American and I can also say that we use it all the time. The sending junk consists of an ancient rotary converter, and never was any good. The transformer is an overgrown affair, big enough for 10-K.W. instead of 1½-K.W., and holds enough oil to supply Ford's electric power house with slip stuff for two months. We have also two high frequnecy impedances on the H.V. side to prevent kick backs. The juice is busted up by a synchronus gap mounted on the generator shaft, and makes more noise than a Trumbull street car, going 50 M.P.H. An' the condenser—Yes, we have one of those things, too, and I want to say here that if weight had anything to do with quality, this could not be beaten. It weighs about 150 pounds, and is filled with oil to help keep the condensor company. The O.T. wins the first prize of the whole set. It is mostly fine-looking cabinets with a few plugs on it. That's all we cuold see until one day my curiosity got the best of me, and I had to gaze at the interior.

Now the fun begins. Starting at the beginning—The primary consists of one (1), get that one turn of about 0000 ignition cable, and is fixed to one wave only, which is about .72 meters. No chance to vary your wave-length at all. The secondary is about the same, except that it has more turns and more changes on it, which are of no use whatever. You vary the coupling by sliding the secondary up and down in front of the primary. The aerial loading inductance is the same as the secondary. Each coil is enclosed in a swell cabinet to hide the contents, for which I don't blame them one bit. We have a receiving set, but it's not worth the paper, and, besides, I would not disgrace my "ham" station with it.

One minute while I break in on a Piedmont. To make things more agreeable, Walt is sitting here cussing my perfectly good Audio-tron because it won't stay in for him. We are only about 400 miles from Gibraltar, and the Q.R.M. here is as bad as in New York harbor. Oh! I didn't tell you that we could get 60 miles with a sending set, but it had to be on a clear night. (Q.R.M.) DE Hoffman. We call our O.T., speaking strictly British, a jigger, and we both are still trying to learn the origin of the term. We both have been playing detective for the last ten days, and as yet no light has been discovered. Guess they mean the secondary "Jig-a-jigs," the primary.

Now to add to our disagreeable outfit comes the ship it is used on. Will try and straighten out its nationality first, and then go on. It's a German ship, was captured by Brazil during the war, and belongs to her now. However, it is being operated by the French government, and is manned by a Portuguese crew with two—and only two—Americans on it. Got to have us—ships couldn't sail if they didn't.

Now that you understand the nationality will try and give you an idea of the way it behaves in the water. Will say this for it, though, she is one of the finest built ships I have ever seen. The trouble is that she has a moulded bottom, and rolls to beat H——. Right now the sea is quite calm, but the ship rolls so much that both Walt and I have all we can do to keep our seats—which accounts for this bum writing. But all we have to do if we don't like the ship is to say so in France, and the French government will send us back as passengers, all expenses paid, and pay to continue until we get back to the States. I think we are coming back as passengers, as the ship don't feed very good—which is our strong point.

Don't know of much else to tell you, unless I say something of our visit to the Azores Islands. These islands are very pretty, and there is a lot one could write about them; but, as I am no description artist, you will have to find that elsewhere. We stopped at the town of Ponto Delgada, and, as there was nothing of any great value in the town, we did not swipe anything. Will send you a piece of their money, worth about half a cent.

Must go on watch now, Cy, so will say so long, and write again from Nantes, France, or Paris. We are going to Paris to look the place over.

73 FRITZ.

She: "I guess that I will marry a doctor, and I can be well for nothing."

He: "I think you ought to marry minister, and then you could be good for nothing."

issing my perfectly
se it won't stay in
about 400 miles from
.M. here is as bad
. Oh! I didn't tell
et 60 miles with a
d to be on a clear
Hoffman. We call
tly British, a jigger,
trying to learn the
We both have been
ne last ten days, and
n discovered. Guess
ary "Jig-a-jigs," the

disagreeable outfit
ed on. Will try and
nality first, and then
ship, was captured
war, and belongs to
is being operated by
it, and is manned by
h two—and only two
ot to have us—ships
lidn't.

stand the nationality
an idea of the way
er. Will say this for
e of the finest built
een. The trouble is
led bottom, and rolls
ht now the sea is
ship rolls so much
I have all we can
—which accounts for
ut all we have to do
ship is to say so in
nch government will
sengers, all expenses
inue until we get back
k we are coming back
ship don't feed very
strong point.

uch else to tell you,
ng of our visit to the
ese islands are very
a lot one could write
I am no description
to find that elsewhere.
town of Ponto Del-
was nothing of any
own, we did not swipe
l you a piece of their
half a cent.

h now, Cy, so will say
again from Nantes.
We are going to Paris
er.

73 FRITZ.

—o—

t I will marry a doctor,
or nothing."
ou ought to marry a
you could be good for

Local Calls

WU9 U. S. S. S. Station, Ann Arbor, Mich.
JC Junior College, Central High School, Detroit, Mich.
2XJ Western Electric Co., Elberon, N.J. Phone.

Eighth District.

8AI J. G. Johnson, 2240 Lawrence, Toledo, Ohio.
8AM F. E. Lyons, 463 Green Ave., Detroit, Mich.
8AN G. Kleinert, 2055 West Grand Blvd., Detroit, Mich.
8AO E. Clark, 81 Spokane, Detroit, Mich.
8AQ E. G. Boyes, 170 West Willis, Detroit, Mich.
8AR H. Tank, 356 Ferndale, Detroit, Mich.
8AU F. Murphy, 150 Hogarth, Detroit, Mich.
8BA E. H. Koehn, 989 Meldrum, Detroit, Mich.
8BF G. Wedemeyer, 511 Kingsley, Ann Arbor, Mich.
8BJ R. F. Hershelman, 325 Cleveland, Detroit, Mich.
8BO Earl Ensign, Toledo, Ohio.
8BZ G. Flower, 65 Hooker, Detroit, Mich.
8CB C. E. Darr, 137 Hill Ave., Highland Park, Mich.
8DG F. D. Johnson, 1335 Hill St., Ann Arbor, Mich.
8EJ P. G. Schlotterbeck, back of 1917 Washtenau, Ann Arbor, Mich.
8FA A. M. Stellwagen, 312 East Jefferson, Ann Arbor, Mich.
8FX Cass Technical High School, Detroit, Mich.
8GR George Norris, 1784 Brush, Detroit, Mich.
8KB Keith McGary, Avery St., Detroit, Mich.
8KH B. Fitzgerald, Kirby and Brooklyn, Detroit, Mich.
8LK J. E. WiWlliams, 723 Oakland Ave., Ann Arbor, Mich.
8LL E. Ryan, 2105 Senator, Detroit, Mich.
8LV "Dutch" Eslinger, 523 Miller Ave., Ann Arbor, Mich.
8MC M. C. Bartlett & Hammond, 180 Parker, Detroit, Mich.
8MG W. Updike, Detroit, Mich.
8MK H. Bowman, 171 Kenilworth, Detroit, Mich.
8MO F. A. Ploetz, 754 Grand River, Detroit, Mich.
8MP E. Hoppenon, 466 Euclid W., Detroit, Mich.
8NL J. J. Dunn, 523 Townsend, Detroit, Mich.
8OH N. Anger, 385 Ferdinand, Detroit, Mich.
8OJ Birmingham, Mich.
8OL T. Schmalzriedt, Cor. Fort St. W. and Elsmere, Detroit, Mich.
8OR E. Gillam, 91 Calvert, Detroit, Mich.
8OZ Robert Leacock, 2210 Gratiot, Detroit, Mich.
8QN F. Collins, 150 Puritan, Detroit, Mich. Phone.
8QY E. A. White, 1012½ Hill St., Ann Arbor, Mich.
8VD E. J. Mossney 485 24th St., Detroit, Mich.
8WA Albert Allen, 435 Bagg, Detroit, Mich.
8WW William Fobare, 390 East Congress St., Detroit, Mich.
8XA University of Michigan, Ann Arbor, Mich.
8ABJ Clifford Sorenson & F. L. Black, Dearborn, Mich.
8ABN Wilbur Landis, 380 West Euclid, Detroit, Mich.
8ABP Bunting, Haven St., Ann Arbor, Mich.
8ADY Barton T. Dreyer, 364 Mont Clair, Detroit, Mich.
8ACN R. E. Chapin, 358 Helen Ave., Detroit, Mich.
8AEA Ben Gurr, 227 Louisiana, Detroit, Mich.

Canadian Stations.

3AA J. Lynch, 161 Jeanette, Windsor, Ont.
3BU C. Gignac, 445 Goyeau, Windsor, Ont.
3DH W. J. Carter 34 Niagara, Windsor, Ont.
3DM C. H. Oaks, 110 Caron, Windsor, Ont.
3EG Bill Mainguy, 171 Victoria Rd., Walkerville, Ont.
3EH F. Stodgell, 106 Devonshire Rd, Walkerville, Ont.

—o—

One day a local man invited a couple of girl friends to listen in on his set, but was very surprised by their refusal and puzzled at their actions when doing so. About a week later he renewed the invitation, and received the same answer. However, he was determined to ascertain the reason. Upon asking them, they replied, blushing: "We don't see how it is that you can stand to be on the roof so much."—T. S.

* * *

There are two kinds of hams—fresh and cured. The fresh ham is the one who, when he first gets his license thinks he has unlimited use of the air. The cured ham is the one who, after being bawled out by the more stable and conscientious cured hams, having got over that seemingly everlasting desire to pound the key and let the world know he is in existence, has become a real operator—the cured ham.—F. E. Lyons.

QUESTION BOX.

Which waves are best—damped or just moist?

* * *

Did you ever try to run a 500 cycle?

* * *

Did you ever run a microphonic relay?

* * *

Did you ever sample an alternating current?

—o—

A few days ago a Detroit amateur purchased some copper tubing, and that night his log entries show the receiving of VBA, VBB, KATE, BVD, 8BA and NUR on a crystal. Guess we will have to go over there.

* * *

Never try to chew electric currents, as they are very "shocking."

* * *

The best kind of meter is to meet 'er alone.

* * *

Always play baseball in a magnetic field.

* * *

Don't lose your breath over the choking coils.

Want Ads.

WANTED.—A Spark Gap Rotor for 3/8" shaft.—E. B. Ryan, 2105 Senator Ave. Cedar 2992-M.

A COMPLETE AUDION RECEIVING Cabinet, 10"x30" for sale.—Call Walnut 1772 for particulars. W. Thompson.

FOR SALE.—Foot Power Wood Turning Lathe, 18" between centers. Will sell for $8, or will trade for short wave coupler.—F. Edwards, Walnut 4612-J.

FOR SALE.—One Deforest Glass Case Crystal Detector, $1.50.—G. Flower, 65 Hooker Ave.

WANTED.—March, 1920, issue of Everyday Engineering Magazine. — Theo. Schmalzriedt, Cedar 98.

FOR SALE.—A Federal Amplfying Transformer, $7. Never used.—Theo. Schmalzriedt, Cedar 98.

FOR SALE.—Honeycomb Coils as follows: three No. L-35, two No. L-75, and one No. L-100.—F. E. Lyons.

FOR SALE.—One complete 15-Unit Receiving Set, DeForest, finely mounted. Used two weeks.—F. L. Black, Cherry 4880, Dearborn.

Used Radio Apparatus

At these prices you'll get more than value received-

Receiving Apparatus

$14.00 Radion Coupler, fine condition $8.00

$35.00 Clapp-Eastham Coupler De Luxe $15.00

$4.75 Murdock 43 Plate Variable Condensers $4.25

$3.00 Unit Panel V. T. Recepticles, new $2.50

$2.00 Jove Detectors, good condition $1.25

$10.50 Clapp-Eastham Balanced Condenser .0015 ..... $8.00

$9.00 Combination Volt Ammeters, new $6.00

Transmitting Apparatus

1-4 K. W. Blitzen Transformer, unmounted $10.00

1-2 K. W. Packard Transformer in box $13.50

Murdock Oscillation Transformer $4.00

Special Oscillation Transformer, large size $5.00

$10.00 Set Hawkins Electrical Guides, new edition $7.50

C. LUCAS

302 Hodges Bldg. - State & Griswold Sts.

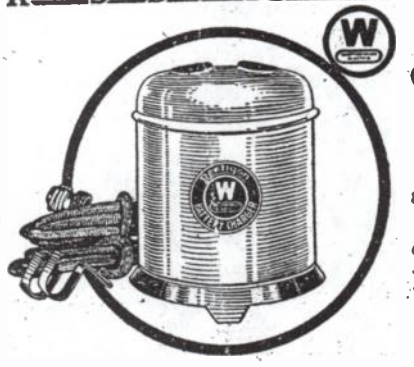
Phone: Main 3054 - over Connelly's Jewelry Store

NO MORE CHARGING EXPENSE!

Westinghouse
RectigonBatteryCharger

Use a Rectigon

a strong and
ctifier, made by
wn and long es-
firm.



Every Battery Owner Needs It

6 Volt Batteries $8.00 and up, guaranteed.

Rental Batteries 25c per day while we are charging yours.

e Do All Kinds of Battery Repairing and
harging. Excellent Work. Quick Service

INDEPENDENT BATTERY CO.

1447 GRAND RIVER AVE. - DETROIT MICH.

The Night Radio Was Born

Except for a handful of listeners, the big event was almost overlooked and didn't even get in the paper. Here's how it was, 40 years ago, when WWJ first took to the air.

BY ROBERT P. RIMES

Compared to the Roaring '20s in which it was born, WWJ and radio broadcasting had a quiet, unassuming birth.

Not many attended the delivery on August 20, 1920—just a few close friends who had watched the infant develop under the skilled hand of "amateur operators" or Hams, as they are known today, a day on which the world's pioneer radio station begins its 41st year of continuous and regularly scheduled operation.

It isn't surprising that WWJ's first broadcast drew little attention. For this was the beginning of the fabulous twenties—the year when both the 18th and 19th amendments became law, giving women the right to vote—and nobody the right to sell or consume alcoholic beverages.

The "Black Sox" World Series scandal rocked the baseball world, Babe Ruth was the popular game, Mary Pickford starred in "Pollyanna" and Clara Bow was the prime.

The first broadcast, in a makeshift "radio phone room" on the second floor of The Detroit News Building, was an exciting event for those few fortunate enough to witness it.

Using a phonograph, borrowed from the Edison Shop, then located on Woodward avenue next to the present Telenews Theater, Howard Trumbo, manager of the shop, placed a record on the turntable and waited for the signal to spin it. He had selected two records, "Roses of Picardy" and "Annie Laurie."

Young Elton Plant, whose regular job was office boy in The News editorial room, held a crude cardboard megaphone in his hands. When all was in readiness, Plant had been instructed to put the large end of the horn against the phonograph speaker and the small end against the mouthpiece of the DeForest transmitter.

With earphones around his head, Keith Benand made a few last-minute adjustments on the receiving equipment and glanced up at the clock on the wall. It was exactly 8:15 p.m.

Frank Edwards, one of WWJ's first operators, surveyed the scene, leaned toward the mouthpiece of the transmitter, and called out to the night air:

"This is 8MK calling." (The call letters later were changed to WWJ and finally to WWJ.) Michael D. Lyons, who had installed the transmitter, stood nearby and gave a smile of approval as the first broadcast began.

Just before then, in perhaps 30 Detroit homes, listeners fortunate enough to own homemade receiving sets excitedly adjusted condenser dials. They had awed their neighbors with their knowledge of a mysterious power which enabled them to receive voices, and even music through the air.

Some of the most advanced students of the new science had transmitting equipment as well.

As the last strains of "Roses of Picardy" died, Edwards again spoke into the mouthpiece of the transmitter. "How do you get it?" he asked.

And a medley of voices came back through the darkness. "It's coming in fine. We're getting evrything loudly and distinctly."

Following this exchange, a member of The Detroit News advertising department played "Taps" and WWJ's first broadcast had ended.

* * *

Fantastic Era Begins

No one could foresee the impact that this first broadcast would have on the culture and living habits of America. Who could have dreamed that two black-faced comedians who called themselves Amos and Andy would stop traffic and telephone calls at 7 p.m. every evening? Certainly not the four young men in the technical crew of the initial broadcast.

Edwards left [illegible] the plumbing business [illegible] returned to his [illegible] Border City.

[illegible] nician, was a nomad. He left the station, wandered to California, then down into South America, and was never heard from again by his WWJ friends.

[illegible] abandoned radio and went into the priesthood.

In 1927, he left Detroit to serve in the Patna, India mission field as a Jesuit scholastic and was ordained four years later at St. Mary's College, Kurseong, India.

After 19 years as a missionary, he returned to the United States in 1946 to write articles on the plight of the Indians. According to the best information, he has returned to India and is believed to be living in Calcutta, but his exact whereabouts is not known.

Trumbo is now the plant engineer for Faygo Beverages Inc. in Detroit.

Only a handful of people realized the full significance of the situation. One was in the listening audience that first night, according to The Detroit News, which itself did not report the event until 11 days later. He was a high school student, keenly interested in every phase of radio broadcasting. The News [illegible] Albert B. Allen [illegible] his station. Suddenly the [illegible] at first a bit stringy, but [illegible] ment of the instrumen[illegible] it, making it more distinct and [illegible] in an adjoining room.

Allen now is a member of WWJ's engineering staff—and has been for the last 33 years.

Another Detroiter, Thomas E. Clark, predicted the power of radio as early as 1917. In an attempt to interest backers for his experiments in broadcasting, Clark told James E. Scripps, founder of [illegible]

"The time will come when you will sit in your home and be entertained by music played thousands of [illegible] Men will talk across countless wastes and waters; nations will be closer together because, through discovery, they will better understand each other."

As Clark talked, the editor [illegible] how bankers and men in the [illegible] their heads when the young [illegible] name was mentioned. There [illegible] who said it never would succeed. It was uncanny, impossible, the [illegible] flighty brain—and more [illegible] thing in which no money should be invested.

* * *

Pioneer Meets a Backer

Clark extended an invitation to Scripps and his son, William E., to attend a private demonstration of the [illegible] system. After hearing wireless messages transmitted between Clark's laboratory in a building opposite the present Cadillac Hotel to a receiving set located two short blocks away in the Chamber of Commerce Building, Scripps took out his checkbook and wrote out a check for $1,000 to further his experiments in Morse code broadcasting.

In the years that followed, Williams E. Scripps, who later became publisher of The News, turned to another, still newer, mystery of science—broadcasting by voice.

At every opportunity, the younger Scripps discussed the new medium with Clark, since they both lived in the same section of the city, and his interest grew. Just as his father had envisioned the possibilities of wireless telegraphy, the son began to realize radio's value and growth potential.

In 1919, as amateur operators sprinkled the country with crude transmissions of the spoken word instead of simple telegraph signals, William E. Scripps became convinced that broadcasting equipment should be installed in The News offices and used ultimately to send out late-breaking news bulletins which arrived too late to make the last edition of the newspaper.

Clark was invited to a meeting of The News board of directors to explain the technical problems involved in establishing a station. At Scripps' urging, the board agreed to appropriate funds to purchase a transmitter.

With Scripps as the guiding hand, Radio News & Music, Inc., representatives for the DeForest Wireless Apparatus Company, installed the new equipment.

It was with this transmitter, a DeForest model OT-10, that the first broadcasts were made on that memorable August 20 of 1920.

For the next 11 days following the first broadcast, the WWJ crew transmitted a vocal concert each evening at 8 p.m. Stirring arias by Caruso, Melba, Galli-Curci and other great recording stars of the day were consumed by an eager but small audience.

* * *

Hot News on Hot Election

On Aug. [illegible] Republican [illegible] gubernatorial nomination. The [illegible] in front page headlines:

"The News Radiophone to Give Vote Results. Amateurs Over Michigan Are Invited to Give Wireless Parties and Hear 'Voices in the Night.'"

Careful instructions concerning tuning, frequencies and timings were listed. "Promptly on the hour and half-hour the operator will begin transmitting a bulletin containing every salient point regarding the elections received up to that moment—hot from the counting booths."

Thus, the first radio newscast was broadcast by WWJ complete with local, state and congressional election returns, plus general news bulletins.

On the following day, September 1, in what was probably the first review of a radio broadcast, the station's parent paper breathlessly reported on Page One:

"Land and Water Hear Returns by Wireless," and went on to compare the event to the dreams of Jules Verne and H. G. Wells.

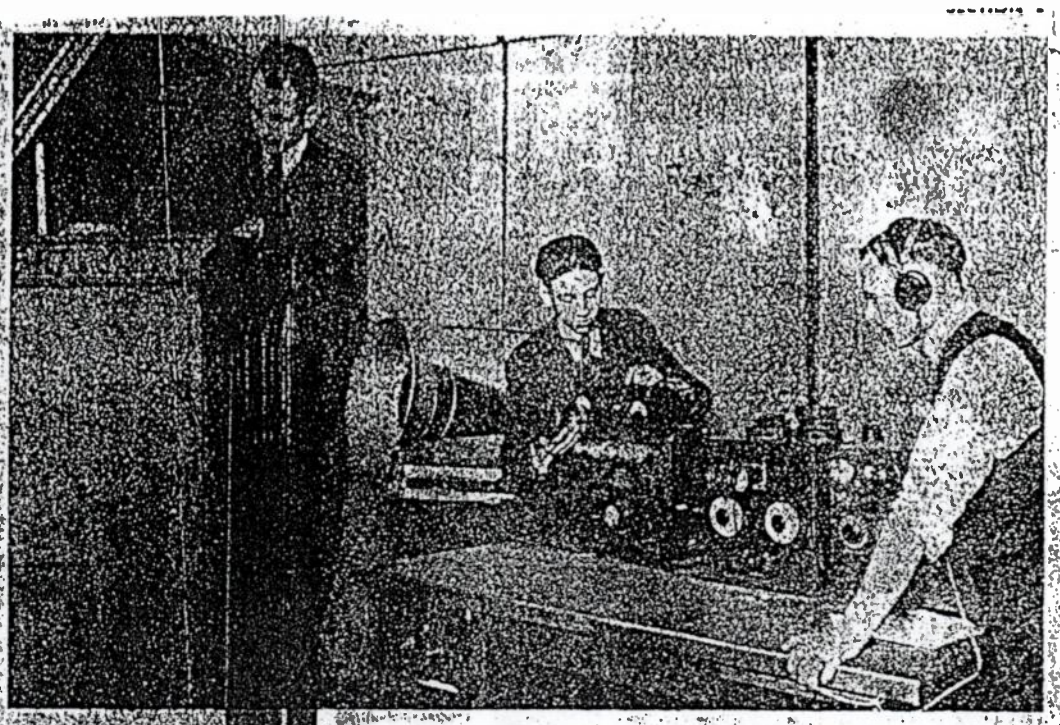
Continuing in the astonishing language of its impact, the story related: "The sending of the election returns Tuesday night was fraught with romance and must go down in the history of man's conquest of the elements as a gigantic step in his progress. In the four hours that the apparatus, set up in an out-of-the-way corner of the building, was hissing and whirling its messages into space, few realized that a dream and prediction had come true. The news of the world was being given forth through this invisible trumpet to the waiting crowds in the unseen market place."

And the waiting crowds were growing daily, using countless varieties of cereal-box coils, ear-trumpet design loud-speakers, batteries, wires and gadgets to attract the magic out of the air.

Without a great deal of mechanical ability, a radio devotee could put together a crystal detector set, complete with cat's whisker, for less than $8. A vacuum detector set could be built for less than $60.

Enterprising program planners answered the shouts for more and better

(Concluded on Page 21E)



HISTORIC SCENE—Photo made a short time later approximates the scene in The Detroit News makeshift studio the night of Aug. 20, 1920, when station 8MK went on the air for the first time. Left is Howard Trumbo, a record shop manager who took part in the event; center is News office boy Elton Plant, and at right, an amateur operator, Keith Benand.

Who Was First?

The Detroit News and WWJ have been asked frequently to explain why both WWJ and KDKA, Pittsburgh, claim the distinction of being the world's first radio station. The chronological records are set down like this:

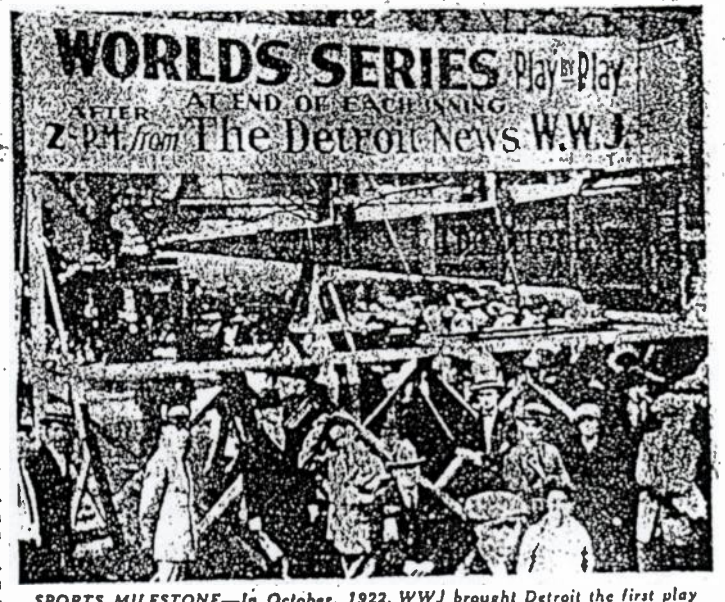
WWJ	KDKA
1. First broadcast on Aug. 20, 1920.	1. First broadcast on Nov. 2, 1920.
2. Night and day program since above date.	2. Programs semi-weekly until Dec. 1, 1920
3. Commercial license issued Oct. 13, 1921.	3. Commercial license issued Oct. 27, 1920

The "father" of radio, famed inventor Lee DeForest, appears to have settled the dispute in 1936 when he said: "On the night of Aug. 20, 1920, the first commercial radio broadcast station in all the world was opened. And every night and every day since that momentous beginning WWJ has maintained this service.

"Not until eleven weeks after its founding did WWJ share the channels of the air with a rival broadcasting station. The honor of being second . . . fell to KDKA of Pittsburgh . . . and although it has erroneously claimed and been credited with seniority among broadcasters, it is still entitled to a place of distinction . . ."

SONGBIRD—Mary Pickford starred in "Pollyanna" and Clara Bow was the prime. "In natural voice over WWJ in September, 1920. She sang "Ave Maria" to a phonograph accompaniment.

QUARTER-CENTURY MARK—The late William E. Scripps, publisher of The News and a radio pioneer, cuts into a birthday cake on the occasion of WWJ's 25th anniversary in 1945. Behind him is his son, William J. Scripps; at left is Thomas Clark, one of Detroit's earliest wireless telegraphy experimenters, and at right, actor Walter Hampden.



SPORTS MILESTONE—In October, 1922, WWJ brought Detroit the first play by play account of the World Series through the marvelous medium of radio. Here's a crowd waiting for the big event in Grand Circus Park.

1960 DETROIT NEWS ARTICLE.

Continued from Page 1E

service with several improvements in wireless service.

The "first dancing party with music exclusively by radio" was a highly successful social event at the home of Mrs. Charles F. Hammond, 180 Parker Place, on the evenings of September 4, [illegible]. For sports fans, on September 6, the results of the Dempsey-Miske heavyweight fight were "broadcast within 30 seconds of the time the bulletin was received by wire."

'NATURAL VOICE'

A few days later, the first vocal concert "in natural voice" was broadcast by Mabel Norton [illegible] "Ave Maria," while the [illegible] graph provided her accompaniment.

At the turn of the year, Al Weeks, the "Town Crier" and WWJ's "newscaster," was covering the big stories of 1921, Harding's inauguration, the Sacco-Vanzetti trial and the Dempsey-Carpentier fight at Boyle's Thirty Acres.

One of the first remote broadcasts brought the chimes of St. Paul's Cathedral to WWJ listeners in December, 1921, and on February 10, 1922, another radio "first" was made when Ossip Gabrilowitsch stepped to the front of the Detroit Symphony Orchestra and conducted the first complete concert ever heard by radio listeners.

FIRST 'RADIO BAND'

The 16-piece WWJ Orchestra became the first such organization assembled expressly for radio on May 28, 1922, and two days later WWJ assumed the blame as well as the credit for introducing physical exercises by radio.

It was the following year—1923—when Emil Coue's auto-suggestion craze, "Day by day in every way, I'm getting better and better," and the Charleston were sweeping the country, that Ty Tyson first broadcast University of Michigan football games over WWJ.

In 1927, Tyson inaugurated direct baseball broadcasts by describing Tiger home games from Detroit's old Navin Field while radio reported Lindbergh's flight to Paris, the Dempsey-Tunney "long count" fight, and Babe Ruth's [illegible] home runs in a single season.

Celebrities trooped [illegible] out of the heavy [illegible] studios in those early days to make their radio debuts on WWJ. Some treated the new medium as a curiosity or a challenge. Some cursed at the unresponsive carbon mike, some swore at it, while others found it a door to new fame and fortune.

BAFFLED SINGER

The Detroit News, on Dec. 19, 1921, summed up one performer's frustration thus.

"The receiver (microphone) is not a very appreciative instrument, at least in appearance. One can't tell from the looks of it whether his number is liked or not.

"This was quite baffling to Ernie Ball. He sang one or [illegible] to the telephone [illegible] in a manner [illegible] of blind rage. [illegible] duck out his [illegible] at the instrument, which seemed to relieve his [illegible] for he swung [illegible] into another se-

[illegible] old WWJ history book [illegible] "It is no uncommon thing [illegible] such [illegible] St. Cecile operatic star, to doff coat, waistcoat, collar and necktie before singing."

THE BIG PARADE

[illegible] and vaudeville vis- [illegible] Tierney [illegible] Tierney [illegible] debut as [illegible] went on to win millions of fans with her portrayal of the irrepressible "Baby Snooks," joined Julia Marlow, Lillian Gish and Will Rogers in their first radio performances anywhere on WWJ.

Fred Waring and his Pennsylvanians were heard at a University of Michigan J-Hop by Bill Holiday, WWJ's first program manager, and were invited to come to Detroit to perform before the microphone. The group was such a hit that other engagements immediately took them out of college and into show business.

The famous in almost every field were represented. Thomas E. Dewey, who later became a presidential candidate made his radio debut on WWJ singing with the University of Michigan choir, and Rudolph Valentino, silent in all of his pictures, found his voice for thousands of WWJ listeners.

LORENZ, COBB

Dr. Adolph Lorenz, the [illegible] dressed the WWJ radio audience, along with Tyrus Raymond Cobb, Count Ilya Tolstoy and Sir Philip Gibbs, the British war correspondent.

By 1930 radio had grown into a mighty avalanche of sounds heard from nearly every sector of the country. Joe Penner was asking Rudy Vallee, "Do you wanna buy a duck?" Bob Burns' [illegible] and his bazooka playing were winning new friends every week. A wooden dummy named Charlie McCarthy exchanged quips with his string puller Edgar Bergen and delighted listeners across the country.

In 1936, WWJ moved from its cramped quarters to a new five-story building directly across the street from its parent organization and the press called it a new era in Detroit broadcasting.

Today, the pioneer station serves 1,898,500 radio homes in southeastern Michigan with an imposing array of features and popular personalities — a giant step forward from a 20-watt transmitter, tucked in a [illegible] on a table.

Of Arms and Men

Continued from Page 2E

genic, his instinct for taking high advantage of a low position is profound and his sense of trust is at least no worse than an alligator's.

NOBODY ACTS

Not only is this petty skulduggery getting away with it; not one person in UN seems willing to say words which might cut him down to size. Russia doesn't care to because it dreams of possibly using Lumumba and the anarchic disposition of the Congo some day.

The U.S. Britain and Friends draw back, biting their tongues, lest they push [illegible] into Russia's arms—[illegible] what a romance that [illegible] old [illegible] Of course, the apologists for [illegible] Congo and the UN its members, supposedly strong, free governments, lack guts when the chips are down. They forget that virtue withers in human affairs when courage is lacking.

One sometimes loses by a gamble but one always loses if one dares risk nothing at all. That is the moral UN needs remember when grave decisions must be taken. It is the moral of audacity.

Blindfold Act Scheduled by Newell Banks

Detroit's Newell Banks, one of the world's greatest chess and checker players, will give an exhibition Wednesday of

ENTHUSIASM MARKS ENTRANCE OF RADIO INTO UNIVERSITY HIGH

High School Workers Do Much To Improve School Apparatus

Mr. Reynolds and Assistants Strive to Make 8YAF Known Nationally

This article was not written to rouse your interest in radio—that miracle word of the last six months—nor to inform the budding neophyte how to construct and operate a six-stage, tone-frequency, vacuum-valve amplifier. It was composed with the sole aim of telling the world just what part radio has played in the University of Detroit High School.

Four years ago, a carefree Irishman, Michael Lyons by name, enrolled as a freshman in the Hi. His walk and manner professed him to be a seaman, and they did not prevaricate. Mike had come directly from the old D. & C. steamer, "City of Mackinac," where he had been employed throughout the summer as wireless operator.

He talked radio about the school, he wrote about radio and he instilled a slight interest of radio into several members of his class. His evening hours were spent as radio instructor at Cass Tech. High School, where he has had the pleasure of teaching some of his school-mates all about that mystic science.

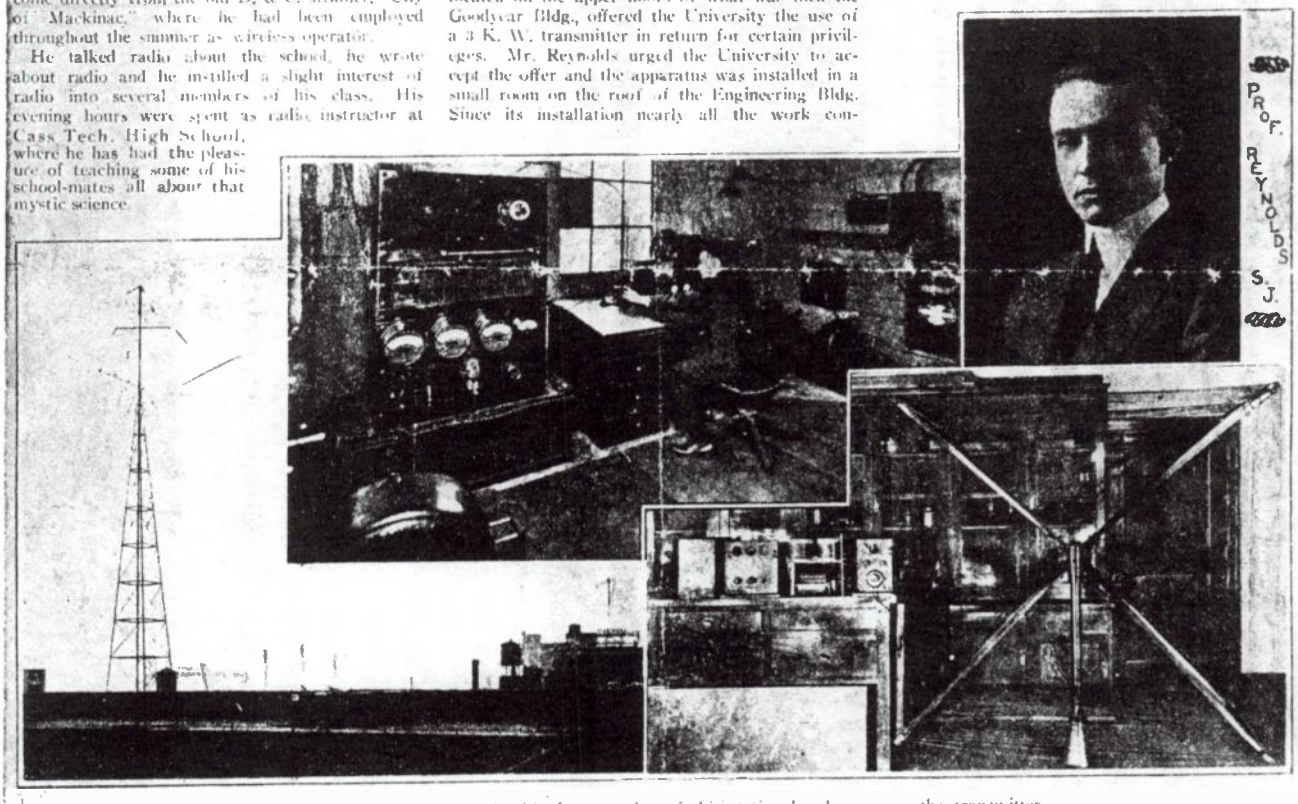
Mr. Reynolds not only proved to be a very capable physics instructor but his foresight aided in obtaining for the University one of the first collegiate radio outfits in the country. More will be said about this in a later paragraph.

The fall of 1919 was also notable because it marked the entrance of C. F. Hammond, Jr., one of Detroit's pioneer radio enthusiasts. Other men who were the proud possessors of efficient radio equipment at this time were Fred Hickey, Ambrose Walsh, Truman Brenton and C. F. Matgen.

In the fall of 1920, the Detroit News opened their radio broadcasting station. Music from this station provided jazz for the first radio dance of Detroit, held at the home of C. F. Hammond, Jr.

The Intercity Radio Corp., whose station was located on the upper floors of what was then the Goodyear Bldg., offered the University the use of a 3 K. W. transmitter in return for certain privileges. Mr. Reynolds urged the University to accept the offer and the apparatus was installed in a small room on the roof of the Engineering Bldg. Since its installation nearly all the work connected with the operation of this station has been performed by high school students under the supervision of Mr Reynolds. Mr Lyons led in the work, but in Messrs. Walsh, Hickey, and Hammond he found several capable assistants.

Upon the failure of the Intercity Radio Corp., the set was purchased by the University and, by the transaction, we also acquired a loop receiving set using three stages of radio frequency amplification and five stages of audio frequency amplification. Me at the same time, the University engineers constructed a 150-watt radio telephone and C. W. transmitter.



Radio personnel may be said to have entered the school one bright autumn day in 1918. From that time, interest in radio increased in the High School and in the University at large until the University has taken its place as a leader in that line.

Mr. Reynold's Arrival Booms Radio Interest

In the fall of 1919, the faculty forces were augmented by the arrival of a pleasant young gentleman whose calling card bears the inscription, "Mr. T. E. Reynolds, S. J., Instructor in Physics and Mathematics." He brought with him, in a battered suit case, some material radio apparatus, some quaint facts and fancies on the subject, and, in his head, a [illegible] ing and experimenting.

Description of University Receiving Set

Would our kind readers like to view the Chicago's apparatus? Then follow us.

Here we are! This is room 312 of the Engineering Building. Step inside quietly and close the door after you. See that large coil of wire in the center of the room? That's the special loop aerial designed to receive long wavelengths. The real working end of the receiver is enclosed in all those black boxes. The minute electric currents that are combed from the ether by the loop aerial are directed to the first black box where they are reinforced. This apparatus is called a two-stage radio frequency amplifier. Then the currents are pumped into the second box where the frequency is changed and they are strengthened still further. They say that this is a three-stage super-audio frequency amplifier. It puts the finishing touches on the signals and sends them into the receivers. Let's go up to see the transmitter.

Can you beat that? He don't even know we're here yet. Must be listening to something very interesting. Let's borrow his keys and go up to see the transmitter.

Powerful Transmitter to Be Developed Further

This ladder leads to the room on the roof where the transmitters are sheltered. I'll go up first and unlock the opening—it's quite a trick. (This parentheses denote the interval of time required for Ye Radio Hug and companion to reach a higher level.) That tall panel on your left is the spark transmitter. Direct current from the Edison Company's mains enters that large motor-generator in the foreground and emerges as high frequency alternating current. Then it goes behind the six-inch-bakelite panel. Here the voltage is raised by a specially designed transformer. Then the current oscillates through some gaps

Continued on page 15, column 2

January 6, 1966

Dear Helen,

I was very pleased to get that sweater from you and Margaret for Christmas. I am wearing it now as I write this! Many thanks.

The other day I was trying to remember the D + C Navigation Company boats I sailed on and which ones I was on in which years. I think the first was "W E B", City of Mackinac II, and I believe I sailed on that from April 12th, 1917, until October 15, 1917; and after that on "W E D", The Western States sailing between Detroit and Cleveland. Do you remember the call letters of any ships or any dates? I have moved around so much in the last half century and you have stayed so fixed, you may have more information than I have. I am not writing memoirs, just would like to know for my satisfaction. (When one gets old, one recalls more old memories!) I'll be grateful for any data you can tell me.

I take it that you and Clyde and all are well. Perhaps high B.P. runs in the family, but it appears controllable. Last week, after a hectic, lousy day, mine was 160/90. Sometimes it is down to 140/84. I think we are fortunate when we look about us. A friend of mine who is 43, is in the hospital with liver trouble, probably infectious hepatitis or liver damage from poisons used at work. He does not know whether he will recover at all, and feels sad indeed. There are so many cases of such among people a score of years our juniors, and on the other hand I know of people in their eighties healthy and happy. Do you recall dad telling us he was of a long-lived family and had an aunt, I believe, who was 93?

Letter writing is not my forte, and I trust you will pardon the poor handwriting. I started with the idea of writing Margaret also, but I'll do it shortly for sure. Please tell her that sweater was a nice idea of your girls! Love ever

Your brother
Irvine

1921

TUESDAY, AUGUST 30, 192.

Wireless Connection Established Between Toledo and Detroit

Commercial Messages Now Transmitted With Facility by Modern Method.

Toledo's first commercial wireless telephone station was opened for business yesterday with service between Toledo and Detroit.

The station has just been erected by Michael and Francis Lyons and Edward Clark, at 1718 Oakdale avenue. The three partners, doing business under the name of the Central States Radio Service, have a similar station in Detroit, and plan to deliver messages the same as telegraph companies but promise a much faster and cheaper service.

Altho the service is at present only between Toledo and Detroit, the owners expect to reach a business agreement with the Inter-City Radio Corporation so that regular communication can be established with the stations of this concern, in Cleveland, Chicago, New York, Pittsburgh and Philadelphia.

The sending and receiving apparatus of the local station is powerful enough to reach these stations but will not be able to reach Pacific coast stations until an intermediate station is established at Salt Lake City, or some other similar point.

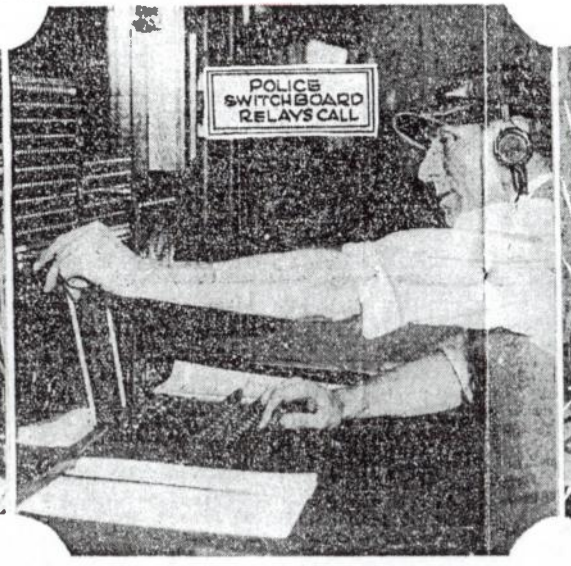
Michael Lyons and E. Clark are the two radio experts and inventors who have been demonstrating a wireless telephone system for use on police automobiles during the last week. The receiving set was used in one of the speed cars and the sending set was held in Central police station.

Safety Director Greenhalgh, Chief of Police Herbert and J. Tyler Greene, superintendent of fire and police alarm systems tested the set by driving to all parts of the city, at the same time remaining in perfect communication with headquarters.

A proposition asking for the purchase of seven sets of apparatus will probably be submitted to council at its next meeting.

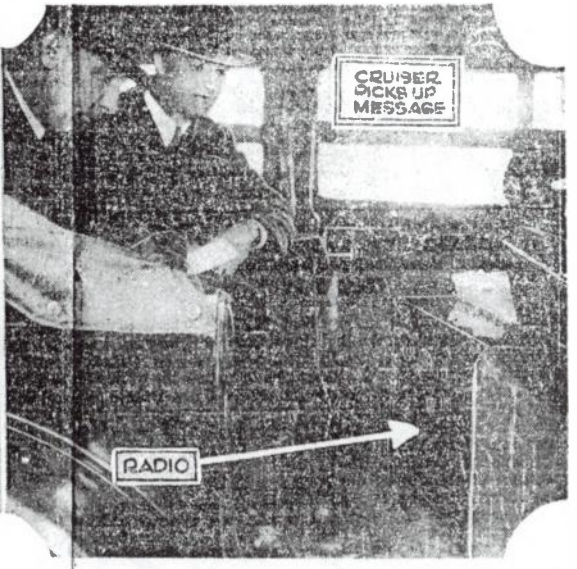
HOW PHONE GIRL -:- AND POLICE RADIO -:- TRAPPED BANDIT

Eleanor Kelly of 7216 Fleming avenue, operator at the Melrose exchange, demonstrating how she gave the alarm to police that resulted in the slaying of the negro bandit who held up the Pioneer Coal Company, 2475 Bellevue avenue.



Miss Kelly called police when she heard sounds of a struggle over the line that was opened when a telephone was knocked to the floor. Here is Joseph F. Grubba at the police switchboard that relayed the alarm to the police radio station on Belle Isle.

W. B. Williams, police radio operator, showing how calls from headquarters are broadcast to police cruisers from the Belle Isle station.



—Photos by Times Staff Photographer.

A police cruiser dashed to the scene in time to trap the fleeing bandit when Miss Kelly's alarm was picked up on the cruiser's radio receiver. Sgt. Otto C. Hopp and Patrolman Philip Lang (above) show how radio-equipped cars keep in touch with headquarters.

CASS RADIO CLUB

Honorary Member.

THIS is to certify that

Michael D. Lyons.

is a member of the Cass Radio Club.

Lester F. Bather

Secretary

Dear Frank

I wanted to write you before Lent about the short wave stuff for Cass. Do you remember how I used to say it was the raving stuff? Tempus fugit. I have 15 mins to write. Pse Excuse poor writing.

Give my regards to all the fellows at the club.

How did they fix all the club arrest? (who got the warrants? Good idea.

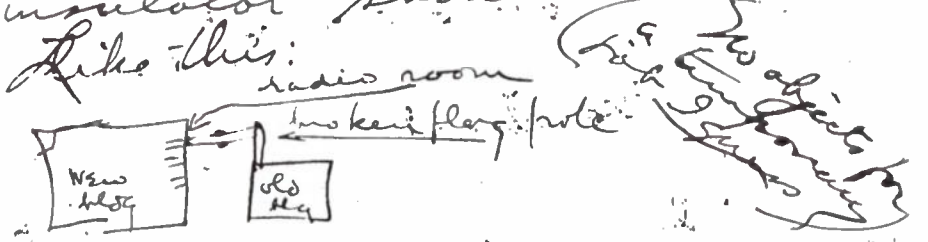
Now abt short λ——. You will find it hard to get a set to oscillate on short λ below 50, I think. We tried it at Cass with E.C. Fifty Lathom copies was at Wig Lonely. We used a little aerial.

As far as I see only a multituned antenna can properly radiate und short λ. U can get the dope on multi tuned without much trouble.

Wrong.

I can't imagine how it can be done at Cass. without the excitator on the roof and a special multituned ant erected on the roof. You can make a temporary job perhaps.

Really an antenna of 2 wires or so across High to the flagpole on the Main bldg. and insulator about 40 feet from the lead in insulator should work. Like this:



This would be a straight antenna but I think it would work ok for experiments, at least to begin with.

As for using an aperiodic circuit, I don't see just how it would work. Perhaps they mean a spark excitation of a multituned antenna. But it is almost impossible to get a good aperiodic (impulse excitation) set to work on less than 300 m. I don't suppose the 40kw set here gives a good decrement even on 200 λ, let alone 50 λ.

2 (p.m.)

Remember in all these things th a receiving set should be of the proper size also. Most fellows make this mistake in using too big receiving sets. An entirely new acting set should be made for the experiments. All capacities should be minimizes and the coils for inductance should be smaller in dia & with turns farther apart than usual to minimize C.

As for tests; the short λ will never be much goods for rec'g for, - say 10 miles for 50 meters in daytime. Inside the radius mentioned it should be very loud but will drop away quickly as the distance exceeds abt 10 miles.

All the night work is made as on 200 and it is to be expected th the variations in sig will be greater than on 200.

(E.M. - a 2 KW / 1000 λ set is about as loud 5 miles away as a 300 λ 1 KW but it is heard further. Ergo, a 50 meter set should be very QSA in a city.)

Well Om I must close

73 To Ma & Pa & the kids.

Be good & stick at Fords & offer it up for graces -

Your loving bro in the

Michael D Lyons

Feeling Great.