RADIO

PROGRESS OF RADIO THROUGH THE YEARS

Wireless Research Began Long Ago, But Development Has Been Swift Lately.

Wireless research started many years ago, as far back even as 1827. Even the radio telephone is not a recent perfection; rather it is that introduction to the layman of the human voice and music has suddenly popularized something that wireless men had thought a pastime or amusement. Here is the chronological record of wireless:

1827—It was found that the magnetic discharge from a leyden jar would magnetize a steel needle.

1831 — Electro-magnetic induction was discovered between two entirely separate circuits by Michael Faraday.

1837—Cooke and Wheatstone of London, England, and Morse of the United States take out first patent for electric telegraph.

1838—K. A. Steinheil of Munich suggested that a system of wireless telegraphy could be established after his discovery of the use of the earth return.

1840—Joseph Henry (U. S. A.) produced the first high-frequency electric oscillations, and stated that the condenser discharge is oscillatory.

1842—Wireless experiments were made by S. F. B. Morse by electric conduction through water across Washington canal and across wide rivers.

1843—A wireless system for transatlantic communication was suggested.

1845—Water was used as a conducting medium in wireless experiments across a wide river.

1849—Intelligible signals were actually sent across a river 4,500 feet wide in India, but the cost was found prohibitive for commercial use.

1867—The electric waves that are now utilized in wireless telegraphy and telephony were predicted in an

Elizabeth A. Bergner, Radio Instructor in Lane Technical High School, Chicago, and Her Class.

address before the Royal Society in London, England.

1880—The sending of an electric current through earth was systematically studied by John Trowbridge of Harvard. It was found that signaling might be carried on over large distances between places not connected by wires.

1885—It was found that telephonic speech could be conveyed by induction over a space of quarter mile. This experiment took place in England.

1889—Electric waves were suggested as being particularly suitable for the sending of signals through fogs.

1892—An instrument for the detection of electro-magnetic waves was discovered which was given the name of a "coherer."

1894—A scientist of Berlin signaled through three miles of water.

1895—High frequency waves excite curiosity of Senatore Marconi.

1896—First patent for practical wireless transmitting system is taken out in London by Marconi. Afterward, successful signaling was carried out over distances as great as one and one-quarter miles. Sir William Preece of the British postoffice system interested his colorirs in Marconi's wireless experiments.

1897—Marconi establishes communication between points four miles distant. Balloons were used to suspend antennae.

Marconi demonstrates his wireless system before the king of Italy, communicating with two Italian warships nine miles distant.

The first Marconi station is erected on the Isle of Wight and experiments conducted over a distance of 14 miles.

Near the end of the year the first floating wireless station was successfully operated.

1898—The first paid marconigram was sent from the Isle of Wight station.

1899—Reports made on lightnouse accident by radio. First French gunboat is fitted with radio apparatus. In Kingstown communication between two balloons is established. New York Herald receives radio report of international yacht races. The British war office introduces Marconi apparatus into the South African battlefields.

1900—Guglielmo ressel communicates a distance of 60 miles by radio signals.

1901—Radio communication started with five islands in the Hawaiian group. The first British ship is fitted with the wireless telegraph.

1902—Radiograph signals received aboard vessels at sea at 1,500 statute miles. Signals received from a distance of 2,000 miles.

1903—King Edward receives a radio message from President Roosevelt. High-power stations were ordered by the Italian government. First transatlantic radio message sent. Telegraphic news service for ships at sea is started. Marconi knighted in Russia.

1904—The first press message was sent across the sea.

1905—Patent suit started in New York between the Marconi and De Forest company.

Patent for horizontal directional aerial is taken out. This was a great step forward in long-distance work.

1906—International conference is held in Berlin, at which most of the countries of the world are represented.

1907—The use of steel disks for producing notes were successfully tested.

Radio stations in Ireland and Nova Scotia were opened for limited public service.

1908—Radio stations opened for unlimited public service between Great Britain and Canada.

1909—Steamship in collision with another off the coast of Florida succeeds in calling assistance by radio.

1910—Marconi receives messages 6,700 miles while on board ship going to South America.

Spanish radio company formed.

1911—Canadian government leased radio stations for 20 years.

1912—Radio distress signals from the Titanic bring assistance and save lives of 700 passengers.

1913—Tests were made between the Eiffel tower in France and the station at Washington. During the trip into Central Asia an explorer received his longitude and time signals from a distant radio station.

1914—Marconi and radio officials start test of wireless telephone between vessels of the Italian fleet. The test was continued between vessels on the high seas and voices were heard with clarity at a distance of 44 miles. One day radio telephone communication was kept up constantly for 12 hours. Great Britain declared war upon Germany August 4 and all private radio telegraphy and telephony suspended.

1915—Radio communication between America and Japan is completed. The stations were located at San Francisco and Tokyo with a relay station at Honolulu.

The American Telephone and Telegraph company succeeded in radio telephoning from Arlington station at Washington to Hawaii, a distance of nearly 5,000 miles.

Secretary Daniels of the United States navy transmitted telephonic messages from Washington to the Brooklyn navy yards.

1916—President Wilson and the mikado of Japan exchange messages over the new transpacific radio service, which is formally opened.

1917—Senatore Marconi visits the United States and aids greatly in recruiting for radio operators for the United States army.

1918—Wireless telephony progressed rapidly, being used to a great extent in the equipment of airplanes.

Several new long range stations were erected in the United States, it being claimed for one built at Annapolis, Md., that it was capable of communication at 4,000 miles. The United States government also opened a high-power station at Bordeaux.

In September of this year radio signals sent from a point 12,000 miles away were received in Sydney, Australia.

1919—With the exception of the three transatlantic flights—that of the U. S. NC-4, and the British flights of Alcock and Brown and the dirigible R-34, in which radio communication played an important part in keeping the ships of the air on their courses—no very great progress was made in radio telegraphy, although radio telephony was being pushed along quietly.

Restrictions upon amateur receiving and sending were lifted by the American government.

1920—This was the year of the radio telephone, more attention probably being paid to this branch of radio than to its older brother, telegraphy. Several broadcasting stations were opened.

1921—This year was another radio telephonic year. It was marked by the opening of numerous broadcasting stations.

Sulphur Whale

The sulphur whale that is found in the Pacific has a peculiar preference for deep water, and is called the bottom whale by many sea-going men. It is frequently more than 100 feet in length, and is regarded by many as the largest mammal that ever lived.

Pass Nebuchadnezzar.

Pickle packers say that every true American must eat a pickle every two weeks. In that case, how's the hay market? We don't want to be put to the necessity of eating a bale of hay to establish our Americanism.—Toledo Blade.

Churches

St. Peter's Episcopal Church—Corner Fourth street and O avenue. Regular services: — Holy Communion 8 a. m.; church school, 9:45; morning prayer Litany and sermon, 11:00; evening prayer, 7:30 p. m. All are cordially invited. Next Sunday, April 30, is the second Sunday after Easter. Ascension Day falls this year upon the 25th day of May. To those who are interested in keeping these Christian seasons the period of time betwixt Easter and Ascension Day commemorates the forty-days in which the Savior appeared to his disciples after his resurrection and gave them definite instruction concerning the nature of his Kingdom. His mission in the world was to found a Kingdom; and these closing days of his mission were occupied in giving to his followers the constitution of that Kingdom. (See Acts 1:3). Our sermon topics during the next four Sundays will deal with phases of this topic. The first will be concerning membership. Come.—Jos. W. Gunn, Rector.

Christian Church — Services for day are as follows: Bible School at 9:45, preaching service at 11 and 7:30 and Christian Endeavor Societies at 6:30. Our Bible School has averaged in attendance for the past five weeks 228. Last Sunday there were 218 present. We rejoice in this manifestation of interest. There is a class for you. At the morning preaching hour the chorus will sing "Awake, Thou That Sleepest." At the evening hour they will give "In the Morning of Life."—O. W. Jones, Minister.

First Church of Christ, Scientist.—Corner of First and Washington, Sunday morning service at 11 o'clock. Subject: "Everlasting Punishment."

Sunday school at 9:45 a. m. Wednesday evening meeting at 8 o'clock. Reading room open to the public every Monday, Wednesday and Saturday from two to four. All are welcome to attend our services.

The First Methodist Episcopal Church—Hear Dr. Melville E. Osborne in the forenoon service. He is a personal friend of the pastor who is glad to recommend him as a man of unusual talent. He is known as "play writer, traveler, lecturer, evangelist, soloist, and actor" as well as preacher. A native of India, but of English parentage, he has a story to tell of that country and its people that is thrilling in its interest. He will sing and speak Sunday forenoon. You will miss a treat if you do not hear him. Special music by the chorus choir. The address by the pastor Sunday evening will be on the subject "The Impossible Commandment." The service will be just sixty minutes long and we believe that you will find it helpful. Bible school at 9:45 with good classes and teachers for all ages. Claude Copper, Superintendent. Epworth League, an all young people's meeting at 6:30. Harvey Carter, president. You are cordially invited to any and all of the services.—G. H. Quigley, Minister.

Latter Day Saints.—Regular services at the Tabernacle. Sunday school commences at 10:30 a. m. Sacramental services, 2 o'clock p. m. Mutual Improvement Association, Sunday at 7:00 p. m. Teachers' training class, Monday at 7:00 p. m. Priesthood and Relief Society meeting at 7:00 p. m. Primary association at the tabernacle Tuesday, for children, 4 p. m. Primary association on north side at the little chapel, for children, Thursday at 4 p. m. Religion class at tabernacle Thursday at 2:30 and 4 p. m. Religion class at the chapel on north side at 2:30 and 4 p. m. Tuesday. Regular choir practice at the Tabernacle Thursday at 7 p. m. Regular Fast Day services at 2 p. m. the First Sunday of each month. The public is cordially invited to attend any or all of our services.—David I. Stoddard, Bishop.

First Baptist Church — Sunday school 10:00 a. m., G. B. Hogan, Supt. Sermon at 11 a. m. Subject, "Victory." Mrs. Frank S. Jester announces a good program of music for Sunday both morning and evening. Young People's meeting 6:30 p. m. A social is to be planned. At 7:30 Rev. J. C. Austin of Portland will preach. Rev. Austin will be here all day Monday and finish the parsonage campaign among our members before asking outside help. $1250 was subscribed the two days he spent here this week. The ladies will serve basket supper Monday evening. Mr. Fair and Mr. Austin will make report of how much has been done at this meeting.—A. R. Sitton, Minister.

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Told All About His Business Affairs; Is Lodged In Jail

PORTLAND, Apr. 29.—"When I go into business, I believe in going into business right. None of this 'piker' stuff for me!" So said Ted Mandrone, bootlegger of The Dalles, to officers who arrested him.

The jail yawns for "birds" who ain't pikers. Though Ted's basic business principles may be sound, he'll have four months to reflect on his next business venture—four months in the Multnomah county jail.

Mandrone was arrested last February when prohibition officers raided his house, which they suspected of being a bootleg resort. Ted wasn't a piker, they discovered. Stored in the place was more than 150 gallons of liquor—mostly of the white mule variety.

The four-month sentence was imposed this morning by Federal Judge Bean, after Mandrone had entered a plea of guilty to an information filed by Assistant United States Attorney Maguire charging possession of liquor and maintaining a nuisance.

Judge Bean also sentenced Ole Hanstevedt to three months in the Multnomah county jail, after Hanstevedt had pleaded guilty to a possession and distilling charge. Hanstevedt had a fifteen gallon still and 150 gallons of mash in his possession, Assistant United States Attorney Bynon told the court.

ONE DAY REST IN EACH WEEK

(By Associated Press)

MEXICO CITY, Apr. 29.—Compulsory closing of the capital's business places on Sunday has brought such a hail of protests upon the head of Celestino Gasca, Governor of the Federal District, that he has modified the order and will allow all classes of business to remain open on Sunday provided they give each employe one day of rest a week.

SHARK CAUGHT

SAN FRANCISCO(Apr. 29.—A man-eating shark was caught by fishermen a short distance outside the Golden Gate today and was placed on exhibition in a downtown meat market. Marine men said that the man-eating shark rarely visits this section.

The specimen captured measured between five and six feet.

LONG RECORD.

(By Associated Press)

LONDON, Apr. 28.—William Whitman has spent 23 years in prison and has just been sentenced to another four years—all for stealing coats. If he were well-to-do, he might be termed a kleptomaniac, not responsible for his acts, but as he is just a very ordinary sort of carpenter, he goes to jail every time he is caught.

After investigation of Union county's business as a taxpayer I am convinced that material reduction can be made in public expenses of this county.

If nominated and elected I promise to bring about this reduction.

John Wells,
Alicel, Oregon

Democratic candidate for County Commissioner in the Primary on May 19th.

Paid Adv.

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