CHRONOLOGY OF INFORMATION AND BIBLIOGRAPHY ON MAHLON LOOMIS (1826–1886)

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These notes concern the life and work of Mahlon Loomis who is credited with patents and early wireless experiments with kites in Virginia and West Virginia.

Mahlon Loomis was born 20 July 1826, at Oppenheim, Fulton County, N.Y., a son of Professor Nathan Loomis (b. abt. 1802, Oppenheim, N,Y.),] whom some claim was associated with Professor Benjamin Peirce of Harvard in the founding of the American Ephemeris and Nautical Almanac. His mother was Waite Jenks Barber Loomis (b. abt. 1806, at Oppenheim, N. Y.). His grand-father, the Rev. Josiah Loomis (b. 5 Feb 1797; d. 8 Nov 1880) of Ashfield, Mass. moved to Springvale, Va. near Dranesville, about 20 miles from Washington, D.C. about 1836 or 1840, taking Nathan and Mahlon with him. Mahlon's brother George (a lawyer) was a city official in Parkersburg, W.Va. (then Virginia), who later moved to Cranberry Summit, W. Va., which was renamed 'Terra Alta' in 1885 by George's daughter Mrs. Carrie E. Loomis Schoeber (b. 1869, in W. Va.; d.). Mahlon had a grandniece, Mrs. Marion Loomis Aschenbach (born 26 Oct. 1889; died in Oct. 1978). In 1968 she was living in Springfield. Mass.

Mahlon studied dentistry in Cleveland, Ohio, starting in Sept. 1848, then taught school in Cuyahoga, Ohio, the following winter. By summer 1849 he knew considerable dentistry and returned to Virginia to practice. On 28 May 1856, in West Springfield, Mass., Mahlon Loomis married Achsah Ashley (b. 18 Aug., 1831, West Springfield, Mass.). Then in November of 1856, Loomis and his bride of a few months settled in Washington D.C. where he set up a dentistry practice.

Mahlon has been stated as having been the fourth of nine children, including: George (b. 19 April 1824, Oppenheim, N.Y.; d. 18 April 1902, buried next to Mahlon); Eben Jenks Loomis (b. 11 Nov. 1828, Oppenheim, N. Y.), a well-known poet and astronomer; John (?); and the oldest brother Joseph Barber Loomis (b. 17 Feb. 1821, Oppenheim, N.Y.; d. 14 July 1895), musician, poet, editor, lecturer, artist, author, astronomer, and philosopher.

Mahlon Loomis died 13 October, 1886, at Terra Alta, W. Va., at the summer home of his brother George Loomis, and is buried at Terra Alta.

Two Portraits of Mahlon Loomis:





The left-hand portrait, or its reversal, appears in many of the articles and web sites about Loomis.

The West Virginia highway historical marker on W. Va. Rt. 7 just north of Terra Alta, at the entrance to the cemetery reads as follows:

DR. LOOMIS' GRAVE

In the cemetery is buried Dr. Mahlon Loomis, sender of first aerial signals, 1866-73, fore-runner of wireless telegraphy. Signals were sent 14 miles, using kites flown by copper wires. Patented 1872; company chartered by Congress, 1873.

EVENTS OF MAHLON LOOMIS' LIFE RELATING TO RADIO AND OTHER INVENTIONS

- Mahlon Loomis, U. S. Patent No. for making false teeth from porcelain, granted in 1854. It was also patented in England. This was a mineral-plate (kaolin) process. See records in the Loomis Institute,
 Windsor, Conn.
- 2. Mahlon Loomis, Experiment in 1859, replacing batteries on an otherwise conventional telegraph line between Fall River and South Braintree, Mass.
- 3. Mahlon Loomis, Notebooks. In an entry dated 20 Feb. 1864, he wrote that for years he had been trying to work out a process by which telegraphic communications could be made across the ocean or anywhere on land without the use of wires. These notebooks were donated to the Library of Congress by Loomis' grandson, the late Charles Frederick Perrot Rose.
- 4. Mahlon Loomis, Sketch of his original idea, dated 21 July 1864.
- 5. Mahlon Loomis, Experiment using two kites on two peaks in the Blue Ridge Mountains in Loudoun County, Virginia. U. S. Senator Samuel C. Pomeroy (Kansas) and U. S. Representative John A. Bingham (Ohio) were witnesses to this experiment, made in October 1866. (One source says the year was 1868.) Another account says the experiment was made at Snickers Gap, in Loudoun County, about 19 miles east of Winchester. The kites were 14 miles apart. Some say they were 18 miles apart.

- 6. Senator Charles Sumner (Massachusetts) introduced a bill in the U. S.

 Senate on 13 January 1869 to obtain funds to support Loomis. The bill
 was not sent to the Committee on Appropriations, but instead to the

 Committee on Patents. No action was taken at that session of Congress.
- 7. H. R. 2390, introduced by Congressman Bingham, 20 July 1870, to incorporate the Loomis Aerial Telegraph Company with the right to capitalize not in excess of two million dollars. But the House was not inclined to act on it.
- 8. Mahlon Loomis, sometime about 1870 (?) communicated between two ships two miles apart in the Chesapeake Bay.
- 9. The great Chicago Fire happened on 8 Oct. 1871. The financial backers of Loomis were wiped out.
- 10. The bill introduced into Congress by Senator Sumner in 1869 reached the floor of the House of Repesentatives. The bill was defeated by lack of a quorum, but was passed the next day.
- 11. Mahlon Loomis, U. S. Patent No. 129,971, "Improvement in Telegraphing," granted 30 July 1872.
- 12. The bill to incorporate the Loomis Aerial Telegraphic Company was passed by the U. S. Congress in January 1873, the vote being 29 yeas,
 12 nays, and 33 absent, and signed into law by President U. S. Grant.
 But no funds were provided. In 1873 financial conditions were extremely bad, with 5000 commercial failures, 89 railroads in 12

months defaulting on bonds.

- 13. Mahlon Loomis, U.S. Patent No. for a convertible valise, issued in May 1881.
- 14. Mahlon Loomis, U. S. Patent No. for a cuff-and-collar fastening. issued in Nov. 1881.
- 15. Mahlon Loomis, U. S. Patent No. for an electrical thermostat improvement, issued in March 1886.
- 16. Dr. Otis B. Young, Director of atomic and capacitor research at Southern Illinois University, Thomas Appleby, and others, had a joint resolution introduced before the 89-th Congress memorializing Dr. Loomis in 1972. They were aided by the American Dental Association. The resolution had rough going and died in 1966 in the Senate Judiciary Committee.

ARTICLES AND BOOKS ABOUT MAHLON LOOMIS

- Thomas R. Lebo (Amateur Radio Operator W2OEU), <u>The Man Before</u>
 <u>Marconi</u>, <u>A Biography of Dr. Mahlon Loomis</u>, QST, Vol. 32, August 1948, pp. 42–44. A small print of a well-known right-profile portrait of Loomis is included.
- 2. Theodore M. Hannah, <u>Wireless Pioneer in Virginia</u>, Virginia Cavalcade, Vol. 12, No. 3, Winter, 1962–63, pp. 18–22. (has a photo of the patent)
- 3. William C. Blizzard, Marconi's Unsung Rival, Sunday Gazette-Mail,
 State Magazine section, Charleston, W.Va., 27 Nov. 1966, pp. 6m and 18m.

- Article includes a photo of George Loomis' old home at Terra Alta and a photo looking down a street where it has been said that Mahlon Loomis may have strung wires for wireless telegraph experiments.
- Thomas Appleby, <u>Mahlon Loomis, Inventor of Radio</u>, Washington, D.C., 1967,
 145 pp. Published through the Mahlon Loomis Foundation, Wash., D.C.
 (Appleby, born in 1866, a retired Navy Commander, erected wireless
 stations in Philadelphia in 1899 based on Loomis' principles.
- 5. Otis B. Young, Mahlon Loomis, the Discoverer and Inventor of Radio: A

 Report of the Chairman of the Radio Discovery Committee of the Illinois

 State Academy of Science, Transactions of the Illinois State Academy of Science, Vol. 60(1967), No. 1, pp.3–8.
- 6. C. Hansen, 100 Years of Radio, Radio-TV Experimenter, Vol. 23(1967, No.1, Oct.-Nov., pp. 43-46. Has a small left-profile photo of Loomis, and similar ones of seven other early radio inventors.
- 7. Harry Altshuler, The Textbooks are Wrong! Marconi Did Not Invent Radio An American Invented Radio 8 Years Before Marconi Was Born, National Enquirer, Vol.42, No. 3, 5 May 1968, p. 4. Article has a left-profile photo of Loomis different from the one in Lebo's article, three photos of early (1892) radio inventor Nathan B. Stubblefield of Kentucky and a view of a Kentucky highway historical marker honoring Stubblefield.
- 8. Thomas Melville Davies, <u>Genius or Dreamer? The Man 30 Years Before</u>

 Marconi, Dominion-Post, 19 May 1968, Panorama section, pp. 5 and 12.

- Has photos of Loomis, his gravestone, the highway historical marker, and the old home of Loomis' brother George where Mahlon spent his last days.

 The text of this article is verbatim to that of Thomas Lebo (No. 1 above).
- 9. Kite Tales, American Kitefliers Association, Vol. 4, No. 4, Autumn Edition, 1969. In this there is printed a "Mystery Photo", contributed by AKA member Dr. John Forbes, Charlottesville, Va., showing a group of people on a cliff flying kites, and encaptioned below: "WEST VIRGINIA Professor Loomis' experiments in aerial telegraphy transmitting messages by means of kites." The editor wanted information as to dates, what the experiment consisted of, and results. A Xerox copy of this item was given to the author of these notes by the late Professor I. D. Peters of West Virginia University, who in turn received it from his kite–flying friend Lt. R. D. Reel stationed in Vienna, Austria.
- 10. William M. Aston, Science Writer with the University News Service, West Virginia Ulniversity, Terra Alta Man may have invented early radio tried to extract electricity from atmosphere, The Dominion-Post, Morgantown, W. Va., Sunday, 7 April 1974, p. 8-C. This article includes some of the usual history, augmented with remarks about atmospheric electricity by Dr. Oleg Jefimenko, Professor of Physics at W. V. U. Article includes the well-known left-profile photo of Loomis, a view of George Loomis' home at Terra Alta, and the historical marker on Rt. 7 north of Terra Alta where Loomis is buried.

- Unsigned (probably a version of Aston's article), WVU Daily Athenaeum,
 Wed. 10 April 1974.
- 12. Unsigned, <u>Terra Alta asked to join in project</u>, news item in Dominion-Post, Thurs. 22 April, 1976. This reports that Lou Decker, county bicentennial coordinator in Oppenheim, N.Y., hopes to persuade New York Congressman Donald Mitchell to attempt to revive a resolution recognizing Dr. Loomis, which a senior West Virginia senator attempted to have passed in 1966. The resolution died when the senator died.
- 13. Encyclopedia Americana,
- 14. Dictionary of American Biography,
- 15. Prominent Men of West Virginia, published by Atkinson & Gibbons, Wheeling, W.Va. 1890. On page 381 is an account of George Loomis.

Web Site References:

- http://www.smecc.org/mhlon_loomis.htm
 article about the life and work of Mahlon Loomis.
 Edward A. Sharpe, Archivist SMEC 1989 (now SMECC 2003)
 Southwest Museum of Engineering, Communications and Computation.
 Mission: Preserving Engineering, Communications and Computation History
 We seek the three dimensional artifacts, the papers and thoughts of those
 who pioneered the technology.
- 2. http://www.familysearch.org

This is the genealogy page of the Church of Jesus Christ of Latter Day Saints (Mormons). Through this site many dates concerning the Loomis family may be found.

- 3. http://earlyradiohistory.us/1872loom.htm
 This site offers a typed copy of a handwritten article, signed by Mahlon
 Loomis 7 Jan. 1872. It is believed to be a lecture given by him. It appeared
 in the magazine Radio News, Nov. 1922, pp.974-978. Also has illustrations.
- 4. http://earlyradiohistory.us/129971.htm
 This site offers a typed copy of Loomis' patent (No. 129,971), dated 30 July 1872.
- 5. http://www.loc.gov/exhibits/treasures/tr22x.html
 American Treasures of the Library of Congress. Among the items one can see a page from Mahlon Loomis' Journal.
- 6. http://www.loc.gov/exhibits/treasures/trr083.html
 This offers a portrait of Loomis, a photo of some of his wireless apparatus, and a page from his journal.
- 7. http://www.qsl.net/dominiondx/loomis.htm
 Website of the amateur radio Dominion DX Group (DDXG), preserving amateur radio for the next gebneration. Reproduces several interesting quotes attributed to Loomis, a portrait of him, and his drawing in the Library of Congress showing kites set up 14 miles (actually 18 miles) between Cohocton Mountain and Beorse Deer Mountain, Virginia (now West Virginia). He used a telegraph key at one site and a galvanometer at the other, each connected to a metallic wire and a wire-screen kite. No RF (radio frequency) current was used. His device merely interrupted currents in the transmitting antenna which induced changes in the current at the receiving site.
- 8. http://www.loomis.8k.com/page 2.html
 Extract from data provided by "The Loomis Families of America".
 This site offers a photo (below) of Mary Texana Loomis, a cousin of Mahlon Loomis, and extracts from an article about her that was published in the Dearborn (Michigan) Independent 31 Dec. 1921. Mary was the second child of Alvin Isaac and Caroline (Deyer) Loomis and was born near Goliad, Texas, on 18 Aug. 1880. By 1883 her parents had returned to Rochester, N.Y and then on to Buffalo, where Alvin became the president of a large delivery and storage company. Mary set up and conducted a Radio School (the Loomis Radio School) having been partly inspired by the desire to honor her cousin's work. The school was located at 401 Ninth Street, NW, Washington, DC, and operated with the radio call letters 3YA. By January 1922 the school was

offering a four year course offering a degree in radio engineering. Mary died 7 June 1960.

A photo of Mary Texana Loomis with her radios:



- 9. http://www.rootsweb.com/~nyfulton/loomis.html Move over Marconi, The story of Mahlon Loomis of Oppenheim, NY, Article by Hector Allen, town historian of Oppenheim, N.Y.
- 10. http://members.aol.com/jeff560/loomis.html Offers several items:
 - (1) Did a West Virginian Invent Radio? an article from the (Beckley, W. Va.) Raleigh Register, on Sept. 7, 1976.
 - (2) short extract from the 1948 QST article by Thomas Lebo.
 - (3) an article by Bill Jaker, a radio announcer who formerly worked for WWVU, Morgantown, WV, and now lives in New York State. Jaker's note was originally posted Tue, 5 Jun 2001 00:53:02 -0400 to <old.time.radio@oldradio.net> , From: <Bill Jaker bilj@hancock.net> Subject: Mahlon Loomis.
 - Jaker reports that Mahlon's wife left him.
 - (4) article by Thomas White, a broadcast historian.

 He reports that "Loomis was granted U.S. patent number 129,971 on July 30, 1872 for "a new and Improved Mode of Telegraphing and of Generating Light, Heat, and Motive Power". (In speeches he gave at the time, Loomis also claimed his system could be used to melt icebergs, make the seasons milder, eliminate malaria, and provide an inexhaustible source of energy.)"
 - (5) Joseph Hauger, Managing Editor of the Alpena (Michigan) News, a native of Terra Alta, WV, also offers remarks.
 - (6) Elizabeth McLeod < lizmcl@midcoast.com>sent an item Re: Fathers of Radio to < old.time.radio@oldradio.net>
 - (7) Robert Goodman <robgood@bestweb.net> Sat, 14 Dec 2002 18:01:43 -0500, also made comments on how he interprets the transmissions made by Mahlon Loomis.

Remark: The author of this article solicits any additions and/or corrections.

The Loomis Family has had many notable persons. We wish to mention here:

- 1. Elisha Scott Loomis, b. September 18, 1852, near Wadsworth in Medina County, Ohio; d. 11 December,1940, B.S., Ph.D., Head of Mathematics Dept. at the Cleveland West High School, 1895–1923 when he retired. He is probably best known for his work, The Pythagorean Proposition, a compendium of more than 250 proofs of that famous theorem. The manuscript was prepared in 1907 and published in 1927. A second edition appeared in 1940, and this was reprinted by the National Council of Teachers of Mathematics in 1968 as part of its "Classics in Mathematics Education" series. He wrote at least a hundred articles on mathematics, many of them being published in the American Mathematical Monthly. See:

 (1) Finkel, B. F., "Elisha Scott Loomis, A. M., Ph. D." The American Mathematical Monthly, 1 (1894), 219–222.
 - (2) Elisha S. Loomis, , "Obituary of Elisha S. Loomis, Written by Himself." Loomis Families of America, www.loomis.8k.com. and the web site http://www.bgsu.edu/departments/math/Ohio-section/bicen/esloomis.html gives detailed notes and a photograph of him. He was a cousin of Elias Loomis (below).
- 2. Elias Loomis, born August 7, 1811, in Willington, Connecticut, one of six children born to Hubbel and Jerusha (Burt) Loomis; died in New Haven, Connecticut, on August 15, 1889. See the web site http://www.bgsu.edu/departments/math/Ohio-section/bicen/loomis.html
- 3. Elmer Howard Loomis, b. 1861, Ph.D., Strassburg, Physics professor at Princeton University from 1894. He was a cousin of Elias.
- 4. Serving on the first Board of Governors of West Virginia University in 1867 was Jeremiah Loomis Gould, from Buckhannon, W. Va., a distant relation of the author of these notes. J. Loomis Gould was also State School Superintendent of West Virginia.

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