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MS – 297

Christopher John Lake Aviation Collection

Processed by John Sanford
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Introduction

This small manuscript collection provides partial documentation of the aviation research and engineering of Christopher John Lake. The collection was received by Special Collections and Archives in 1999. It was donated by Martha Adams Erickson, great-granddaughter of Christopher Lake. The collection comprises 11 folders housed in one small Hollinger box.

There are no restrictions on use of the collection. Users should beware of copyright questions, and have special regard for B.H. Sholund's aerial photographs of the Bridgeport harbor (folder 6).

Biographical Information

Christopher John Lake (1847 - 1938) was born in New Jersey. He attended public schools at Smith's Landing and Pleasantville and later Pennington Seminary, Pennington, N.J. At the age of 18 he apprenticed as a watchmaker and jeweller, eventually opening a business at Absecon, N.J. He was born John Christopher Lake, but later officially changed his name to Christopher John Lake by decree of the Connecticut court system. He married Mirriam Adams (1848-1870) of Pleasantville, N.J. They had two children, Simon, born September 4, 1866, and Arletta, born July 17, 1868.

In 1874, Christopher Lake moved to Philadelphia and started a manufacturing company producing window blinds. He invented several improvements for their manufacture especially a self-locking mechanism, and a balance, and eventually the business was sold, later becoming the Union Shade Roller Company of Philadelphia. Christopher Lake was also active in real estate helping to establish the temperance seaside resort of Ocean City in New Jersey, moving there in 1883. He established a successful foundry and machine shop for manufacturing a system for self-holding steering gears and safety winders for the dredging fleets of the Chesapeake Bay region.

Inspired by Jules Verne's Twenty Thousand Leagues Under the Sea, Simon Lake (1866-1945), Christopher's son, designed a submarine and submitted plans to the Navy in 1892, and by 1894, had built his first experimental submarine, "The Argonaut, Jr." It was successfully demonstrated at Atlantic Highlands near Sandy Hook, N.J.

This success led to the formation of the Lake Submarine Company in 1895, which built the Argonaut, the first submarine to operate successfully in the open sea in 1898. Eventually, Simon Lake formed the Lake Torpedo Boat Company, which built numerous submarines for the United States and foreign countries, prior to the First World War. Christopher assisted his son by serving the Lake Company as a vice president.

In 1901, while still living in New Jersey, Christopher Lake published an announcement in the New York Herald stating that he had developed a "...practical everyday flying machine regardless of ordinary wind or weather for air, land, and water." This announcement may have been somewhat premature as there is no evidence of a successful machine at this time. He was very active in American aeronautical circles. At Hammondsport, N.Y., on July 4, 1908, Christopher Lake, representing the Aero Club of America, was among those who watched the first flight of the June Bug, which won novice pilot Glenn Curtiss the Scientific American Trophy.

In 1909 Lake returned to the problem of flight, designing several versions of a multi-wing flying machine which he seems to have powered with an early version of a reaction engine. The aircraft was built in both model and full scale operational forms. (See folder 5), however, there is no photographic evidence of its having flown. Jane's (1909) includes a brief description of Lake's airplane which is referred to as the "Air Sucker".

Lake subsequently purchased a substantial racing facility in Bridgeport, Conn., as an aerodrome, and also as a facility to promote aviation through exhibition flying. The first exhibition flying meet in Connecticut was held at the facility in 1911.

Christopher Lake's most important aeronautical invention may have been his reaction engine, which was an early form of jet propulsion. Lake's particular contribution in this field was to design a thrust augmenter to increase the ejected mass of air from the engine.

Scope and Contents

As stated this collection provides only partial evidence of Christopher J. Lake's aeronautical work. However, the photographs documenting his 1909 flying machine are outstanding. There is also a significant letter from Orville Wright to Lake in 1925 discussing the relationship between the Lake family and the Wright family. The families were related through the Reeder family, distant relatives of Milton Wright, Orville's father. For more information about this connection see MS 1 Box 14 File 10.

The patent reprints should also be of interest to aviation historians.

Inventory

<u>Folder</u>	<u>Description</u>
1	Letter. A.C. Nolte, attorney, to Harold E. Adams, listing 12 patents held by Christopher Lake, July 2, 1963.
2	Complete printed copies of five patents issued to Christopher Lake between 1909 and 1911 for improvements to flying machines, aerial navigation, and aircraft.
3	Patent no. 1279128 issued to Christopher Lake for an aviation power plant, September 17, 1918.
4	Photocopy of part of a book (1945) discussing Lake's 1909 patent for a reaction engine.
5	24 Silver print photographs of Christopher Lake's airplanes and models dated February and March, 1909.
6	10 aerial photographs of the harbor at Bridgeport, Conn., showing the Lake Torpedo Boat Company plant, circa 1915-1925. B.H. Sholund, photographer.
7	Letter. Orville Wright to Christopher J. Lake, December 21, 1925.
8	Letters. Simon Lake to Harold Adams, November 16, 1937, and reply, November 19, 1937.
9	<u>Bridgeport Telegram</u> , obituary for John L. Harkness, January 15, 1964.
10	<u>Bridgeport Sunday Post</u> , news feature discussing Alice Watson Armitage's flight in a Sikorsky S-58 helicopter.
11	Miscellaneous news clippings relating to early aviation especially exhibition era flights (1909-1912) in Bridgeport, Conn., 1940-1964.