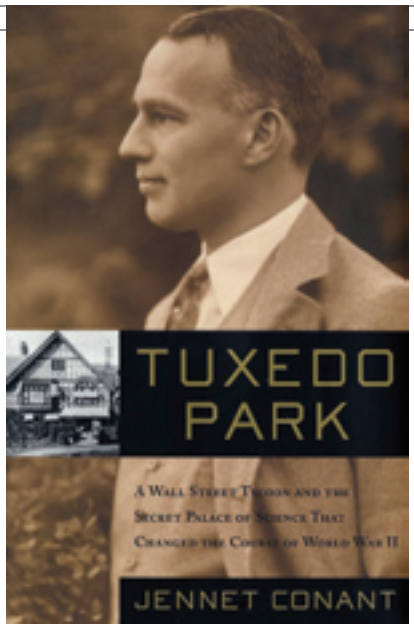
Alfred Loomis: The Last Gentleman Scientist

By Jennet Conant
Reviewed by Roger O'Brient



In the darkest hours of 1940, as Hitler's Luftwaffe hurled bomb after bomb upon London, Winston Churchill made one of the most fateful decisions of the war. Since 1939, a team of British scientists had been designing a radio wave source that could be used to detect incoming enemy aircraft—a technique that later became known as radar. But resources in wartime London were stretched far too thin to accomplish this in time to save the country, so Churchill arranged a clandestine meeting where the prototype, called a magnetron, was delivered to an American scientist who had the resources and connections to finish the job. That scientist was Alfred Loomis.

An investment banker turned amateur physicist, Loomis jump-started American military science programs during the buildup to the Second World War. After making his fortune on Wall Street during the 1920s electric utilities boom, Loomis completely sold out of the stock market in the months prior to the crash of 1929, leaving him one of the wealthiest men in Depression-era America. He used his fortune and political connections to fund and conduct research in the physical sciences.

His legacy: the MIT Radiation Labs, where the Allies' first radar systems were developed.

In *Tuxedo Park*, named after the New York resort town where Loomis ran his private laboratory, Jennet Conant tells the story of how her subject used his wealth and brilliance to transform himself from an outsider in the physics community to one of the most important wartime scientists. Conant has a personal connection to this story through her great-uncle William Richards, a chemist at the Tuxedo Park Lab who committed suicide in 1940 over tensions with Loomis. Working with family friends to obtain access to Loomis's personal letters and diaries, she has assembled the story of one of the last gentleman scientists, a story that has been largely forgotten until now.

The result is an intriguing, richly detailed picture of Loomis's life. Conant relates how Loomis, who served as a colonel in the Army Corps of Engineers during the First World War, drew upon his technical military training to make the dramatic shift from Yale-educated banker to physicist. She then charts his transition from a scientist on the fringe, experimenting on brain waves and precision timers, to an important contributor in microwave and nuclear physics. At his apogee, Loomis was not only a co-principal-investigator, but also a principal source of funding, both through his own fortune and his political connections. Ernest Lawrence's 184-inch cyclotron, for example, would never have received funding were Loomis not working behind the scenes.

While the scale of his support for the physical sciences was unprecedented, Loomis's principal legacy is the Massachusetts Institute of Technology Radiation Labs, where the Allies' first radar systems were developed. Upon receipt of the British magnetron, Loomis used his Washington connections to rouse an isolationist US government to action as he recruited a talented team that included such distinguished UC faculty as Ernest Lawrence, Louis Alvarez, Edwin McMillan, and Emilio Segré. Many have heard the story of J. Robert Oppenheimer leading his team to develop the first atomic bomb, but comparatively few know of Loomis's equally skilled leadership in the radar project. While not as politically significant as the bomb, radar arguably saved far more Allied lives and was equally important in determining the war's outcome. Radar systems were not only crucial in ending the London blitz; they were so effectively engineered that they could detect low-depth submarines, rendering the once-formidable U-boat fleet obsolete.

Tuxedo Park is not without its faults. Conant is fond of using lengthy sentences that often require a couple of takes from the reader. Her book also seems poorly organized at times, bogging down in lengthy side stories that have relevance only later in the book. Oddly, she never really attempts to tie her uncle's death into the rest of the story, and it is all but forgotten by the close of the book. But despite its shortcomings, this biography of Loomis—one of the twentieth century's foremost scientific personalities—is well worth the read.

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