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American Studies

From Phonographs to U-Boats: Edison and His "Insomnia Squad" in Peace and War, 1911–1919



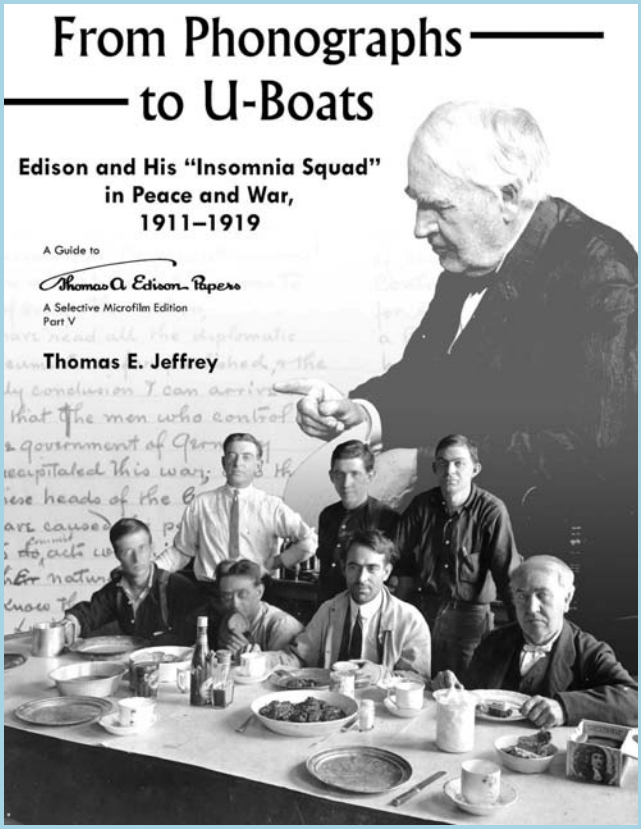

A Guide to Thomas A. Edison Papers, A Selective Microfilm Edition, Part V

Thomas E. Jeffrey

"For a period largely neglected by Edison biographers and historians, this data-packed volume reveals a range of exciting new issues and insights. All future studies of Edison for this period will have to begin with this substantial guide. An absolute must for all research and public libraries!"

Reese V. Jenkins
Professor of History, Rutgers University

Between 1916 and 1920, Mark Mandeville Jones, manager of the Personnel Service Department of Thomas A. Edison, Inc., and Chairman of the Board Charles Edison (the inventor's son) implemented a series of enlightened management principles that transformed Edison Industries from "the last place at which men desired to work to that of the first" (p. 124). Among the innovations introduced by Jones and Charles Edison were increased wages, free medical care, increased attention to workplace safety, and the creation of the Thomas A. Edison Association to "promote sociability" among Edison employees. The association purchased a clubhouse where employees could gather; initiated an athletic program with competitive baseball, basketball, and soccer teams; and sponsored a wide range of social activities. Within a period of six months, beginning in October 1920, Thomas Edison managed to undue the work of four years by firing 90 percent of his workforce and laying off numerous top-level managers in response to the severe economic downturn of 1920–1921. Charles Edison related to his biographer that the cost cuts ordered by his father "broke my heart."



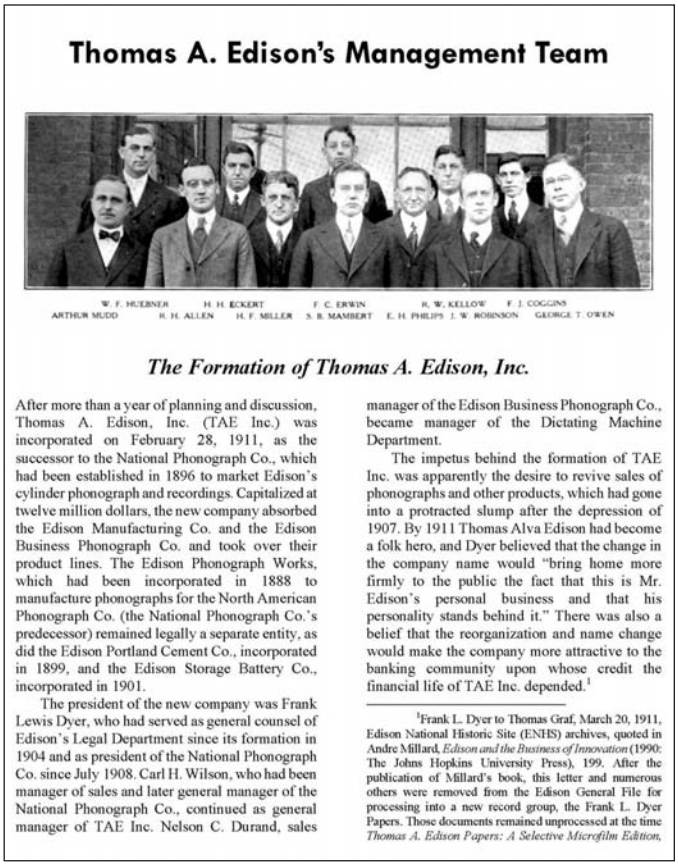
Cover of *From Phonographs to U-Boats,* showing Edison at age 67, just two weeks before the outbreak of World War I in Europe; the inventor eating dinner with his "Insomnia Squad" two years earlier; and a May 1915 note from Edison reacting to the sinking of the RMS Lusitania by a German U-Boat.

The conflict between the management style of Charles Edison and his world-renowned father is just one of the many important episodes chronicled in *From Phonographs to U-Boats*, the first in-depth analysis of Thomas Edison and his companies during the years 1911–1919.

This groundbreaking book by Thomas E. Jeffrey probes an important period in Edison's life that has received little attention in previous scholarly works. During these years, Edison developed several important new inventions, formed a lifelong friendship with automobile manufacturer Henry Ford, and contributed to the war effort by becoming a major producer of chemicals and serving as president of the Naval Consulting Board.

From Phonographs to U-Boats consists of two major essays. The first essay, entitled "The 'Insomnia Squad': Thomas A. Edison's Laboratory and Wartime Research Staff," includes a very interesting section on the origins of the fabled "Insomnia Squad" and reveals for the first time the identity of the mysterious eighth "insomniac" who is not in the group photograph. The section entitled "Did George Washington Carver Really Turn Down a Job Offer from Edison?" provides a conclusive answer to a question that has baffled biographers of Edison and Carver alike. The first essay also discusses the work performed by Edison and his research staff during World War I and examines the awkward situation of Edison's foreign-born employees, many of whom legally became "alien enemies" after the United States entered the war.

The second essay, entitled "Thomas A. Edison's Management Team," tells the story of the innovations introduced by Charles Edison and Mark Jones and reveals the importance of the years 1911–1919 for Edison's companies. With the inventor already in his mid-sixties in 1911, the period covered in *From Phonographs to U-Boats* witnessed a power struggle over who would succeed Edison as head of his industrial empire. On the one hand, there



Thomas A. Edison's Management Team

W. F. HUEBNER H. H. ECKERT F. C. ERWIN R. W. KELLOW F. J. COGGINS
ARTHUR MUDD R. H. ALLEN H. F. MILLER S. B. MAMBERT E. H. PHILIPS J. W. ROBINSON GEORGE T. O'KEEN

The Formation of Thomas A. Edison, Inc.

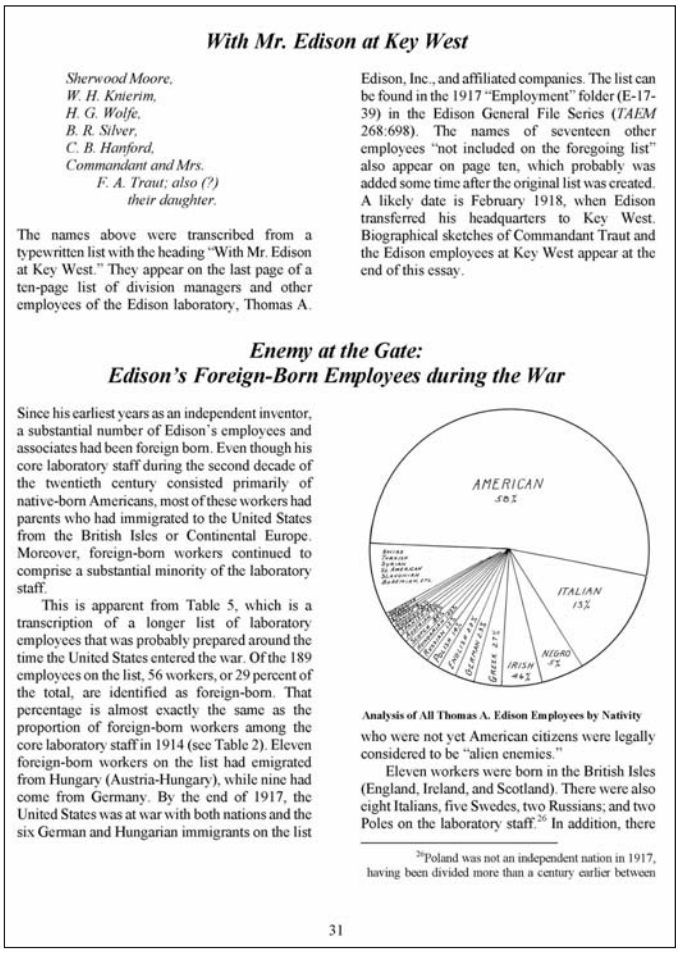
After more than a year of planning and discussion, Thomas A. Edison, Inc. (TAE Inc.) was incorporated on February 28, 1911, as the successor to the National Phonograph Co., which had been established in 1896 to market Edison's cylinder phonograph and recordings. Capitalized at twelve million dollars, the new company absorbed the Edison Manufacturing Co. and the Edison Business Phonograph Co. and took over their product lines. The Edison Phonograph Works, which had been incorporated in 1888 to manufacture phonographs for the North American Phonograph Co. (the National Phonograph Co.'s predecessor) remained legally a separate entity, as did the Edison Portland Cement Co., incorporated in 1899, and the Edison Storage Battery Co., incorporated in 1901.

The president of the new company was Frank Lewis Dyer, who had served as general counsel of Edison's Legal Department since its formation in 1904 and as president of the National Phonograph Co. since July 1908. Carl H. Wilson, who had been manager of sales and later general manager of the National Phonograph Co., continued as general manager of TAE Inc. Nelson C. Durand, sales manager of the Edison Business Phonograph Co., became manager of the Dictating Machine Department.

The impetus behind the formation of TAE Inc. was apparently the desire to revive sales of phonographs and other products, which had gone into a protracted slump after the depression of 1907. By 1911 Thomas Alva Edison had become a folk hero, and Dyer believed that the change in the company name would "bring home more firmly to the public the fact that this is Mr. Edison's personal business and that his personality stands behind it." There was also a belief that the reorganization and name change would make the company more attractive to the banking community upon whose credit the financial life of TAE Inc. depended.[1]

[1]Frank L. Dyer to Thomas Graf, March 20, 1911, Edison National Historic Site (ENHS) archives, quoted in Andre Millard, *Edison and the Business of Innovation* (1990: The Johns Hopkins University Press), 199. After the publication of Millard's book, this letter and numerous others were removed from the Edison General File for processing into a new record group, the Frank L. Dyer Papers. Those documents remained unprocessed at the time *Thomas A. Edison Papers: A Selective Microfilm Edition,*

From Phonographs to U-Boats is handsomely designed, with photographs, charts, and tables accompanying the text. These items give the reader an indication of the exciting documentation to be found in the microfilm edition.



With Mr. Edison at Key West

Sherwood Moore,
W. H. Knierim,
H. G. Wolfe,
B. R. Silver,
C. B. Hanford,
Commandant and Mrs.
F. A. Traut; also (?)
their daughter.

The names above were transcribed from a typewritten list with the heading "With Mr. Edison at Key West." They appear on the last page of a ten-page list of division managers and other employees of the Edison laboratory, Thomas A. Edison, Inc., and affiliated companies. The list can be found in the 1917 "Employment" folder (E-17-39) in the Edison General File Series (*TAEM* 268:698). The names of seventeen other employees "not included on the foregoing list" also appear on page ten, which probably was added some time after the original list was created. A likely date is February 1918, when Edison transferred his headquarters to Key West. Biographical sketches of Commandant Traut and the Edison employees at Key West appear at the end of this essay.

Enemy at the Gate: Edison's Foreign-Born Employees during the War

Since his earliest years as an independent inventor, a substantial number of Edison's employees and associates had been foreign born. Even though his core laboratory staff during the second decade of the twentieth century consisted primarily of native-born Americans, most of these workers had parents who had immigrated to the United States from the British Isles or Continental Europe. Moreover, foreign-born workers continued to comprise a substantial minority of the laboratory staff.

This is apparent from Table 5, which is a transcription of a longer list of laboratory employees that was probably prepared around the time the United States entered the war. Of the 189 employees on the list, 56 workers, or 29 percent of the total, are identified as foreign-born. That percentage is almost exactly the same as the proportion of foreign-born workers among the core laboratory staff in 1914 (see Table 2). Eleven foreign-born workers on the list had emigrated from Hungary (Austria-Hungary), while nine had come from Germany. By the end of 1917, the United States was at war with both nations and the six German and Hungarian immigrants on the list who were not yet American citizens were legally considered to be "alien enemies."

Analysis of All Thomas A. Edison Employees by Nativity

Eleven workers were born in the British Isles (England, Ireland, and Scotland). There were also eight Italians, five Swedes, two Russians; and two Poles on the laboratory staff.[26] In addition, there

[26]Poland was not an independent nation in 1917, having been divided more than a century earlier between

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Throughout his career, a substantial number of Edison's employees and associates were foreign born. Within the "Insomnia Squad" essay, the section entitled, "Enemy at the Gate: Edison's Foreign-Born Employees during the War," discusses the predicament in which many of these employees found themselves, as they legally became "alien enemies" after the United States entered the war. This page from the essay includes a pie chart illustrating the different nationalities represented by Edison's employees.

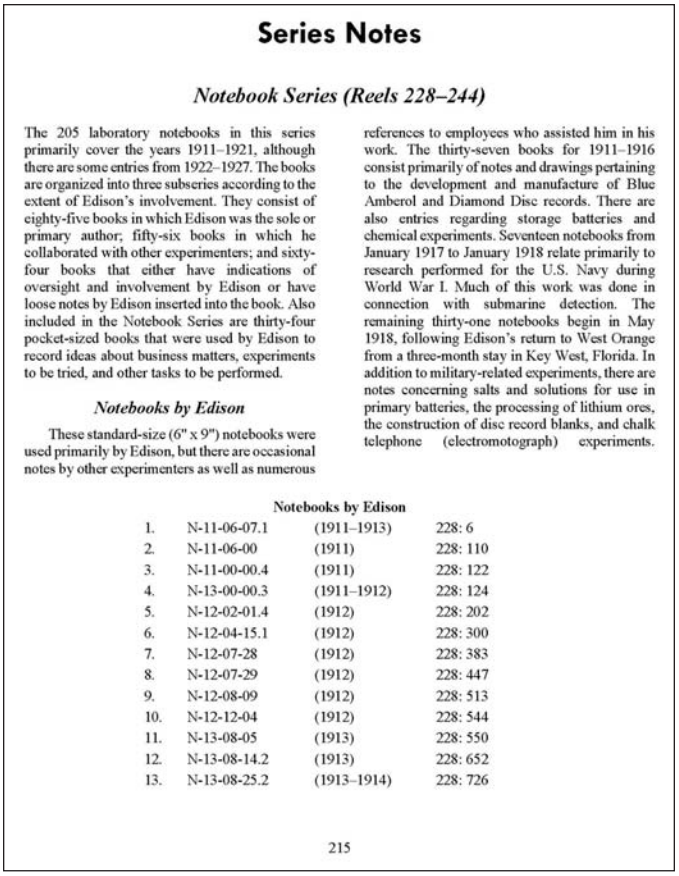
was Charles Edison, who had been groomed by his mother to step into his father's shoes. But there was also Financial Executive Stephen B. Mambert, who had created his own little "empire" within the larger Edison organization, and Chief Engineer Miller Reese Hutchison, who had become Edison's right-hand man in the laboratory. The stories of these three men are related in fascinating detail in the book's second essay.

Taken together, these two essays demonstrate the exciting research opportunities presented by the documents in the *Thomas A. Edison Papers*. With hundreds of citations to the documents in Part V, *From Phonographs to U-Boats* will be of immense value to researchers navigating the microfilm edition as well as an important work of original scholarship.

In addition to describing a previously unexplored period in Edison's life, *From Phonographs to U-Boats* features biographical sketches of more than 350 managers, employees, and family members. The section entitled "Thomas Alva Edison and His Family Tree" provides the first accurate account of Edison's ancestry, correcting errors that have appeared in previous biographies, from the first "official" biography in 1910 to the present day.

The book also contains descriptions of over fifty companies affiliated with Edison Industries. As with the guides that accompanied the first four parts of the *Thomas A. Edison Papers* microfilm edition, there are series notes, a chronology, and an essay on editorial procedures. A special section of the chronology entitled "Mr. Edison Takes a Vacation" contains a detailed account of the Edison family's European tour of 1911 as well as a discussion of the inventor's famous camping trips with Henry Ford, Harvey Firestone, and John Burroughs.

From Phonographs to U-Boats is a fascinating study of life of Thomas Edison and his businesses between 1911 and 1919. With its interesting essays, biographical sketches, and detailed citations, it will be essential reading for students of Edison, and will also be of interest to students of labor-management relations, World War I, and social history.



Series Notes

Notebook Series (Reels 228–244)

The 205 laboratory notebooks in this series primarily cover the years 1911–1921, although there are some entries from 1922–1927. The books are organized into three subseries according to the extent of Edison's involvement. They consist of eighty-five books in which Edison was the sole or primary author; fifty-six books in which he collaborated with other experimenters; and sixty-four books that either have indications of oversight and involvement by Edison or have loose notes by Edison inserted into the book. Also included in the Notebook Series are thirty-four pocket-sized books that were used by Edison to record ideas about business matters, experiments to be tried, and other tasks to be performed.

Notebooks by Edison

These standard-size (6" x 9") notebooks were used primarily by Edison, but there are occasional notes by other experimenters as well as numerous references to employees who assisted him in his work. The thirty-seven books for 1911–1916 consist primarily of notes and drawings pertaining to the development and manufacture of Blue Amberol and Diamond Disc records. There are also entries regarding storage batteries and chemical experiments. Seventeen notebooks from January 1917 to January 1918 relate primarily to research performed for the U.S. Navy during World War I. Much of this work was done in connection with submarine detection. The remaining thirty-one notebooks begin in May 1918, following Edison's return to West Orange from a three-month stay in Key West, Florida. In addition to military-related experiments, there are notes concerning salts and solutions for use in primary batteries, the processing of lithium ores, the construction of disc record blanks, and chalk telephone (electromotograph) experiments.

Notebooks by Edison

1.	N-11-06-07.1	(1911–1913)	228: 6
2.	N-11-06-00	(1911)	228: 110
3.	N-11-00-00.4	(1911)	228: 122
4.	N-13-00-00.3	(1911–1912)	228: 124
5.	N-12-02-01.4	(1912)	228: 202
6.	N-12-04-15.1	(1912)	228: 300
7.	N-12-07-28	(1912)	228: 383
8.	N-12-07-29	(1912)	228: 447
9.	N-12-08-09	(1912)	228: 513
10.	N-12-12-04	(1912)	228: 544
11.	N-13-08-05	(1913)	228: 550
12.	N-13-08-14.2	(1913)	228: 652
13.	N-13-08-25.2	(1913–1914)	228: 726

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In addition to the research essays and biographies, *From Phonographs to U-Boats* includes the same features as the guides that accompanied the first four parts of the *Thomas A. Edison Papers*. Here is the first page of the Series Notes to Part V. The Series Notes contain descriptions of each archival series and subseries reproduced on the microfilm, as well as listings of the individual volumes and folders keyed to their reel and frame numbers.

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Thomas E. Jeffrey is senior editor of the Thomas A. Edison Papers and has been the managing editor of the microfilm edition since its inception.

The Thomas A. Edison Papers (http://edison.rutgers.edu) is a major documentary editing project located at Rutgers, The State University of New Jersey. Its other sponsors are the National Park Service, New Jersey Historical Commission, and Smithsonian Institution. All of the documents in Part V have been filmed from the archives of the Edison National Historic Site in West Orange, New Jersey. Photographs courtesy of the Edison National Historic Site.