

Collection #
M 0824

CLARENCE HICKMAN AND CHARLES STODDARD PAPERS, 1886–1999

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COLLECTION INFORMATION

VOLUME OF COLLECTION:	2 manuscript boxes, 4 folders black-and-white photographs, 2 folders color photographs
COLLECTION DATES:	1886–1999
PROVENANCE:	James L. Brady, Indianapolis, IN, 13 June 2003
RESTRICTIONS:	None
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ALTERNATE
FORMATS:

RELATED
HOLDINGS:

ACCESSION 2003.0433
NUMBER:

NOTES:

BIOGRAPHICAL SKETCH

Clarence Hickman was born 16 August 1889 near Lizton, Indiana. He lived on several farms throughout his childhood before finally moving to Jamestown, Indiana, where he attended high school. He moved to Waynetown, Indiana, graduating from Waynetown High School in 1909. After graduation, he began attending college in Winona Lake, Indiana. He received his A.B. degree from there in 1914. He then moved to New Albany, Indiana to teach physics at the local high school. It was in New Albany that he met his future wife, Mabel Bigwood, while living as a boarder in her father's home. Hickman and Mabel were married in 1915.

In 1917, Hickman began graduate studies at Clark University in Worcester, Massachusetts. It was at Clark University, where he met Robert Goddard, head of the college physics department. Goddard was attempting to develop a rocket at this time and ended up taking advice from Hickman. Goddard suggested that Hickman continue working on the rocket with him once Hickman completed his degree. After Goddard moved from Worcester to Pasadena's Mount Wilson Observatory Shops, Hickman went with him and the two continued their work together.

Hickman lost several fingers on his left hand and parts of the fingers on his right hand during an accident while working on multiple charge rockets. From then on, he and Goddard decided to concentrate on single charge rockets.

In 1919, Goddard arranged for Hickman to begin working for Dr. H.C. Curtis in the Inductance and Capacitance Laboratory at the Bureau of Standards. That year, Hickman's only child was born on June 8th in New Albany. Hickman left the Bureau of Standards in 1920 and began working on a PhD degree under Dr. A.G. Webster at the Industrial Research Laboratory at Clark University. He received his PhD degree in 1922.

Hickman joined the American Piano Company Research Laboratory in 1924 to work on the development of a better Ampico Reproducing piano, which had been invented by Charles Fuller Stoddard. While at Ampico, he developed a system for recording the intensity with which an artist plays each note. He stayed with this company until 1930 after which he joined the acoustical department of Bell Telephone Laboratories.

While at Bell Labs, Hickman developed magnetic recording on metal tape. He also worked on many devices for measuring and showing speech patterns. In the mid-thirties he was transferred to the machine switching group where he developed new ways of machine switching in telephone company central offices.

In the mid-1940's, Hickman served as consultant to the Army in their research on rockets at Aberdeen, Maryland. He completed special technical work for General Henry on evaluation of the German long range rockets. In addition to the work connected with U. S. Rocket Development, he designed and invented work on rockets, recoilless guns, flame throws, bazooka rockets, and airplane rockets. He also developed systems for measuring pressure in rockets and their thrust, as well as an 8 mm, 6,000 frame-per-second moving camera used to photograph rockets in flight.

After the War ended, Hickman returned to Bell Labs and continued work on machine switching devices. He remained

there until his retirement in January 1950. However, he didn't remain retired for long. That year he began assisting the Sandia Corporation of Albuquerque, New Mexico, where he worked with atomic war heads and guided missiles. In 1953, he and his wife returned to their home in New York, where he found work as a consultant and also enjoyed playing his clarinet. After losing his fingers, Hickman was concerned he could never play again. However, he soon modified the instrument using his inventive mind and an old set of keys.

Besides his influence in the development of the Model B Ampico piano and rockets, Hickman made contributions in the fields of archery, submarine mines, magnetic records, telephone equipment, electrical computations and measurements, and photographic equipment.

He had several noteworthy attributes, including an inventive mind, as well as the desire to test and measure and quantify with numbers. Hickman also received countless patents and awards, including the Presidential Medal For Merit Award for Rocket Development Services, the Maurice Thompson Medal of Honor from The National Archery Association for Technical contributions to the Sport of Archery, and the John Price Wetherill Medal from The Franklin Institute for contributions to Rocketry, Telephony, Sound Recording, Archery and other fields.

Hickman authored publications on various subjects, including ballistics, archery, rockets and magic. He was a member of several technical and other societies, including the National Geographic Society, American Physics Society, Acoustical Society of America, Institute of Radio Engineers, Society of Motion Picture Engineers, the Masonic Lodge, Society of American Magicians, and the International Brotherhood of Magicians.

Besides his technical work, Hickman had a keen interest in music. During his lifetime he played the clarinet, guitar and cornet. He was also interested in photography, magic, the German language, and archery.

Hickman passed away on 7 May 1981.

Sources:

Items in collection:

Hickman, Clarence N., *Genealogy of the Hickman families of Virginia, Kentucky, Indiana, and Texas* (New York: s.l., 1967).

Charles Fuller Stoddard was born around 1877. As a child, he enjoyed conducting scientific experiments, including discovering ways to improve the taste of coffee. At age 16, he invented a thermostat for a natural gas furnace for use in his home in Chicago.

His first job was working for a company in Boston where he improved cotton gins. He was later hired as a staff inventor by the American Pneumatic Service Company, where he devised a pneumatic mailing tube later used and installed around the country.

Mr. Stoddard is probably best known for two things – restaurants and pianos. During the 1920's, Stoddard was employed at the American Piano Company. Having rebelled against the off-key sounds of the player pianos of the early twentieth century, Stoddard created a way for the piano to reproduce “note for note, phrase for phrase, and pedal for pedal the playing of the leading artists of the day.” He worked with Dr. Clarence Hickman to perfect the sounds of traditional player pianos. His creation included a built-in recording device and was named the Ampico player piano. The American Piano Company began producing this player piano shortly after Stoddard's invention.

Stoddard's other love was food. In 1930, he opened Stoddard's Restaurant in New York City, where he also successfully created ways to eliminate human error from the kitchen and dining room. He achieved this by installing his own inventions of automatic measuring, mixing and cooking devices. Waitresses took orders in code and the meals were served from the kitchen in small elevators. His roof-top business was extremely successful from the 1930's through the 1950's. Stoddard managed his restaurant until he suffered a stroke in 1956.

Charles Stoddard passed away in 1958, leaving behind his wife Ethel.

Sources:

Item in collection:

Obituary from the *New York Times*, 1 May 1958

SCOPE AND CONTENT NOTE

This collection contains the papers of Clarence Hickman and Charles Fuller Stoddard. These two men were colleagues at the American Piano Company, where they worked together developing player pianos. Both men each contributed significantly to the other aspects of their own careers as well.

The material is divided into 7 series, with Stoddard's materials listed first.

Series 1, Personal Life and Correspondence, contains letters, invitations, photographs, memorial tribute and obituary, and other items related to Stoddard's personal life.

Series 2, Professional Life and Correspondence, contains correspondence, royalty agreement, invention patent and a photograph related to Stoddard's career and professional life.

Series 3, Stoddard's Restaurant, includes menus, correspondence, photographs, a magazine article and other materials related to Stoddard's New York City restaurant.

Series 4, Bird Box Music Box, contains a small bird box given to Charles Stoddard's wife, Ethel. Also included with this series is a love note written by Stoddard and some black-and-white and color photographs of the bird box.

Series 5, Personal Life, includes correspondence between Hickman and James L. Brady, a book of Hickman family genealogy and other biographical materials, a few photographs of Hickman, and other misc. materials related to Clarence Hickman's personal life.

Series 6, Professional Life, contains correspondence, stock papers, show bills, patents, journal articles and other materials related to Hickman's careers as a magician, conducting lab work and research with the American Piano Company, and as consultant with the National Defense Research Committee (NDRC).

Series 7, Hickman and Stoddard as Friends, contains a memorial tribute to Stoddard written by Hickman, correspondence and photographs of watches originally owned by Stoddard and Hickman, documents related to a bird box music box originally owned by Stoddard's wife, Ethel, and photographs showing a portrait of a nude young woman, which hung in Stoddard's office.

SERIES CONTENTS

Series 1: Personal Life and Correspondence

CONTENTS

Original and photocopy of a letter written by

CONTAINER

Box 1, Folder 1

Stoddard to his mother, 2 June 1886	
Invitation sent to Miss Blanche Stoddard to attend the Dedication of the World's Columbian Exposition buildings in Chicago, 20-22 Oct 1892	Box 1, Folder 1
Original and photocopy of a letter written to Stoddard from [Alvin Hall] of the Bureau of Engraving and Printing in Washington, D.C., 24 April 1926	Box 1, Folder 1
3 b/w photographic postcards from the Chicago Natural History Museum written to Mrs. Charles Stoddard	Box 1, Folder 1
Subscription form for the 1937-38 opera season at the New York Metropolitan Opera	Box 1, Folder 1
1 b/w photograph, n.d., (8" x 10"), shows image of Charles Stoddard	Visual Collections: Photographs, Folder 1
1 b/w photograph, n.d., (3" x 6"), shows Stoddard and his wife Ethel	Visual Collections: Photographs, Folder 1
1 b/w photograph, n.d., (2 1/2" x 5"), shows Stoddard's [Rolls Royce] automobile	Visual Collections: Photographs, Folder 1
1 b/w photograph, n.d., (5" x 7"), shows an image of American Piano Company's President Mr. Foster's home	Visual Collections: Photographs, Folder 1
1 Safety Driving Award issued to Mrs. Charles F. Stoddard from the Guarantee Legion of Safety Drivers	Box 1, Folder 1
2 Western Union telegrams sent by Charles Stoddard to Mrs. C.F. Stoddard, 12 March 1936 and 15 March 1936	Box 1, Folder 1
16 b/w and color photographic and mechanical postcards, show images such as Yosemite National Park, Tacoma and Wenatchee, Washington, The Biltmore of Santa Barbara, California, Los Angeles, California, Pikes Peak, Colorado, the Toll House of Whitman, Massachusetts, and the Huntington Library of San Marino, California	Box 1, Folder 1
2 copies of a memorial tribute and obituary for Charles Fuller Stoddard from the <i>New York Times</i> , 1 May 1958	Box 1, Folder 1
Letter written to Mr. Jim Brady from F. Lipscomb re: Charles Stoddard, 17 April 1982	Box 1, Folder 1
8 color photographs, 2000, (4" x 6"), show images of	Visual Collections:

watches, umbrella and other personal items owned by Stoddard

Color Photographs,
Folder 1

Series 2: Professional Life and Correspondence

CONTENTS

Original and photocopy of a reference letter written by the Chief Draughtsman of the Cutler-Hammer Manufacturing Company of Chicago on behalf of Charles Stoddard, 6 Sept 1899

CONTAINER

Box 1, Folder 2

1 music roll royalty agreement between American Piano Company and Charles Fuller Stoddard, 12 Nov 1913

Box 1, Folder 2

1 patent for "improvement in striking devices for stringed musical instruments" issued 14 May 1929

Box 1, Folder 2

Original and photocopy of a letter written by H.E. Edgerton of Massachusetts Institute of Technology re: golf ball and golf club velocities, 25 May 1933

Box 1, Folder 2

1 b/w photograph, 1933, (3" x 9"), shows velocity of a golf ball. Included with above letter

Visual Collections:
Photographs, Folder 2

Series 3: Stoddard's Restaurant

CONTENTS

Typewritten description of Stoddard's Restaurant in New York City

CONTAINER

Box 1, Folder 3

Photocopy of an article written by Robert Lewis Taylor about Stoddard's Restaurant and published in the *Saturday Evening Post*

Box 1, Folder 3

14 b/w photographs, n.d., (3 1/2" x 5"), show employees at Stoddard's Restaurant

Visual Collection:
Photographs, Folder 3

Menu from Stoddard's Restaurant, 13 Nov 1936

Box 1, Folder 3

Menu from a 1941 Christmas dinner at Stoddard's

Box 1, Folder 3

Letter written by L.L. Orenstein of the Gilbert Press re: publication of *Where to Sin* in New York and listing Stoddard's Restaurant in this book, 23 April 1956

Box 1, Folder 3

Series 4: Bird Box Music Box

CONTENTS

Check box contains 1 bird box. Includes original love note written by Charles Stoddard to his wife

CONTAINER

Artifacts: 2003.0433

Ethel

Copy of a love note written to Ethel Stoddard with presentation of bird box

Box 1, Folder 1

1 b/w photograph, n.d., (8" x 10"), shows a close-up image of bird box

Visual Collection:
Photographs, Folder 2

4 color photographs, n.d., (4" x 6"), shows images of bird box

Visual Collection:
Color Photographs,
Folder 1

For more information about the bird box, please see Bird Box folder with Clarence Hickman collection

Series 5: Personal Life

CONTENTS

Correspondence between Clarence Hickman and James Brady, 1978-1982

CONTAINER

Box 1, Folders 4 and 5

Hickman, Clarence N., *Genealogy of the Hickman families of Virginia, Kentucky, Indiana and Texas* (Jackson Heights, NY, 1967).

Box 1, Folder 6

-Includes biographical sketch of Hickman

An interview with Dr. Clarence N. Hickman, by Nelson Barden, 1969

Box 1, Folder 6

Typewritten transcript from a memorial service for Dr. Clarence N. Hickman, held at the World Archery Center in Marshalls Creek, PA, 7 May 1981

Box 1, Folder 6

Brochure for the 44th anniversary of the World Archery Center, 1981

Box 1, Folder 6

E-mail correspondence between James Brady and members of the Mechanical Music Digest (MMD) online message board, 1999

Box 1, Folder 7

Foster, George Gale, *Sketches of my life* (Greenwich, CT, 1953).

Box 1, Folder 8

-Foster was involved in archery with Clarence Hickman

Duff, James and May Duff Murray, Clarence N. Hickman, ed., *Archery poems*, ([New York]: Eastern Archery Association, 1956).

Box 1, Folder 9

-Duff was involved with the Eastern Archery Association with Clarence Hickman

2 photocopies show a picture of a young Clarence Hickman

Visual Collections:
Photographs, Folder 4

1 b/w photograph shows a portrait of middle-aged Hickman

Visual Collections:
Photographs, Folder 4

1 color photograph shows an elderly Hickman

Visual Collections:
Color Photographs,
Folder 2

Series 6: Professional Life

CONTENTS

4 show bills used by Hickman during his days as a magician, (ca. 1911)

CONTAINER

Box 1, Folder 10

Letter sent to James L. Brady from Clarence Hickman about his magic show bills, 1980

Box 1, Folder 10

The Most Popular Music Dictionary (Indianapolis: Carlin & Lennox, 1910).

Box 1, Folder 11

-Contains musical signs added by Clarence Hickman

3 Albert System fingering scales for the clarinet

Box 1, Folder 11

American Piano Company stock papers – 1 cumulative preferred stock (29 October 1924) and 1 common stock (25 May 1927)

Box 1, Folder 12

Hickman, C.N., “Spark chronograph developed for measuring intensity of percussion instrument tones.” *The Journal of the Acoustical Society of America* 1, no. 1 (1929): 138–146.

Box 1, Folder 13

-Original reprint and 2 photocopies of article

Photocopy of patent from the United States Patent Office issued to Clarence Hickman for a piano key action, 12 July 1932

Box 1, Folder 14

Barden, Nelson, “Fidelity and the Ampico”. (No additional publication information available).

Box 1, Folder 15

-Typewritten article about Hickman and the Ampico piano

Givens, Larry, *Re-enacting the artist; A story of the Ampico reproducing piano* (Vestal, NY: The Vestal Press, 1970).

Box 1, Folder 15

-Includes inscription from Clarence Hickman

U.S. Rocket Ordinance; Development and use in World War II (Washington, DC: Joint Board on

Box 1, Folder 16

Scientific Information Policy for Office of Scientific Research and Development, War Department, and Navy Department, 1946).

Letters of appreciation received and written by Hickman while employed at the National Defense Research Committee (NDRC), 1941-1950. Letters were originally bound in portfolio and arranged chronologically. Contents are listed below

Letters, 1941-1943	Box 1, Folder 17
Letters, 1944	Box 1, Folder 18
Letters, 1945	Box 1, Folder 19
Letters, 1946	Box 1, Folder 20
Letters, 1947-1950	Box 1, Folder 21

Rocket lecture data given to various groups, includes correspondence, programs and photos, 1946-1949. Originally in bound volume and arranged by subject. Subjects of letters listed below

American Institute of Mining and Metallurgical Engineers (AIME)	Box 2, Folder 1
American Society of Mechanical Engineers (ASME) and American Rocket Society (ARS)	Box 2, Folder 2
American Chemical Society (ACS)	Box 2, Folder 3
Air War College	Box 2, Folder 4
R.R. Club	Box 2, Folder 5
New York Electrical Society	Box 2, Folder 6
Misc. groups	Box 2, Folder 7
Committee of 100	Box 2, Folder 8

Series 7: Hickman and Stoddard as Friends

CONTENTS

Typewritten tribute to Charles Fuller Stoddard written by Clarence Hickman. Folder contains 1 complete manuscript and 1 incomplete manuscript

2 color photographs show combination stopwatch and timekeeper watch that originally belonged to Hickman and Stoddard

Letter written to James L. Brady by Clarence

CONTAINER

Box 2, Folder 9

Visual Collection:
Color Photographs,
Folder 2

Box 2, Folder 10

Hickman, presenting watches to him

Photocopy of pages from Hickman genealogy book detailing historical record of Stoddard's watch

Box 2, Folder 10

Materials related to bird box music box including sound motion picture scenario scripts, directions for oiling music boxes, and net price list of musical boxes

Box 2, Folder 11

4 color photographs show painting of young nude woman which used to hang in Stoddard's office

Visual Collections:
Color Photographs,
Folder 2

CATALOGING INFORMATION

For additional information on this collection, including a list of subject headings that may lead you to related materials:

1. Go to the Indiana Historical Society's online catalog: <http://opac.indianahistory.org/>
2. Click on the "Basic Search" icon.
3. Select "Call Number" from the "Search In:" box.
4. Search for the collection by its basic call number (in this case, M 0824).
5. When you find the collection, go to the "Full Record" screen for a list of headings that can be searched for related materials.