

**Frederic Eugene Ives and Herbert Eugene Ives Papers**  
**A Finding Aid to the Collection in the Library of Congress**



**Manuscript Division, Library of Congress**  
**Washington, D.C.**  
**2010**

Contact information: <http://hdl.loc.gov/loc.mss/mss.contact>

Catalog Record: <https://lcn.loc.gov/mm78027508>

Additional search options available at: <https://hdl.loc.gov/loc.mss/eadmss.ms010111>

Prepared by David Mathisen

Finding aid encoded by Library of Congress Manuscript Division, 2009

## Collection Summary

**Title:** Frederic Eugene Ives and Herbert Eugene Ives Papers

**Span Dates:** 1869-1957

**Bulk Dates:** (bulk 1900-1952)

**ID No.:** MSS27508

**Creator:** Ives, Frederic Eugene, 1856-1937

**Creator:** Ives, Herbert Eugene, 1882-1953

**Extent:** 5,000 items

**Extent:** 15 containers plus 1 oversize

**Extent:** 6.8 linear feet

**Language:** Collection material in English with some German

**Location:** Manuscript Division, Library of Congress, Washington, D.C.

**LC Catalog record:** <https://lccn.loc.gov/mm78027508>

**Summary:** Inventor and photographer (Frederic Eugene Ives). Physicist and television pioneer (Herbert Eugene Ives). Correspondence, journals, speeches, articles, scrapbooks, patents, clippings, and other papers relating to the inventions of Frederic Ives and his son Herbert Eugene Ives.

## Selected Search Terms

The following terms have been used to index the description of this collection in the LC Catalog. They are grouped by name of person or organization, by subject or location, and by occupation and listed alphabetically.

### People

Butterfield, E. E.--Correspondence.

Eastman, George, 1854-1932--Correspondence.

Einstein, Albert, 1879-1955--Correspondence.

Einstein, Albert, 1879-1955.

George V, King of Great Britain, 1865-1936--Correspondence.

Hodges, Courtney H., 1887-1966--Correspondence.

Ives family--Correspondence.

Ives, Frederic Eugene, 1856-1937.

Ives, Herbert Eugene, 1882-1953. Frederic Eugene Ives and Herbert Eugene Ives papers. 1869-1957.

Truman, Harry S., 1884-1972--Correspondence.

### Subjects

Aerial photography.

Color photography.

Photography.

Phototelegraphy.

Physics.

Television.

### Titles

*Frederic Eugene Ives papers*

*Herbert Eugene Ives papers*

### Occupations

Inventors.

Photographers.

## Provenance

The papers of Frederic Eugene Ives, inventor and photographer, and Herbert Eugene Ives, physicist and television pioneer, were transferred to the Library of Congress from the Smithsonian Institution in 1964-1965 and given to the Library by Mable Ives, widow of Herbert Eugene Ives, in 1966. Additional material was given by Vera Kimball Castles in 1978.

## Processing History

The papers of Frederic Eugene Ives and Herbert Eugene Ives were arranged and described in 1965. The collection was expanded in 1984 and revised in 2010.

## Copyright Status

Copyright in the unpublished writings of Frederic Eugene Ives and Herbert Eugene Ives in these papers and in other collections in the custody of the Library of Congress is reserved. Consult a reference librarian in the Manuscript Division for further information.

## Access and Restrictions

The papers of Frederic Eugene Ives and Herbert Eugene Ives are open to research. Researchers are advised to contact the Manuscript Reading Room prior to visiting. Many collections are stored off-site and advance notice is needed to retrieve these items for research use.

## Preferred Citation

Researchers wishing to cite this collection should include the following information: Container number, Frederic Eugene Ives and Herbert Eugene Ives Papers, Manuscript Division, Library of Congress, Washington, D.C.

## Biographical Notes

### Frederic Eugene Ives

Date	Event
1856, Feb. 17	Born, Litchfield, Conn.
1866	Moved to Norfolk, Conn.
1868	Ended formal schooling
1868-1870	Served apprenticeship on <i>Litchfield Enquirer</i>
1874-1878	Directed photographic laboratory, Cornell University, Ithaca, N.Y.
1879	Married Mary Elizabeth Olmstead (died 1904) Employed by Crosscup and West, a photographic company in Philadelphia, Pa.
1885	Invented the half-tone system of developing photographic negatives
1890	Invented Kronshop, a system of color photography
1903	Invented short-tube microscope
1912	Invented Tripak, a color camera
1913	Married Margaret Campbell Cutting
1928	Published <i>Autobiography of an Amateur Inventor</i> . Privately printed
1937, May 27	Died, Philadelphia, Pa.

## Herbert Eugene Ives

Date	Event
1882, July 31	Born, Philadelphia, Pa.
1892	Attended University College School, London, England
1897-1898	Attended Laurence Sheriff School, Rugby, England
1898-1901	Worked for Ives-Kronshop Co. Philadelphia, Pa.
1899-1900	Attended Franklin Institute Night School of Mathematics, Philadelphia, Pa.
1901-1905	Attended University of Pennsylvania, Philadelphia, Pa.
1905-1908	Attended Johns Hopkins Univ., Baltimore, Md.
1908	Married Mabel Lorenz
1908-1909	Worked for National Bureau of Standards, Washington, D.C.
1910-1912	Worked for National Electric Lamp Association Research Laboratory, Cleveland, Ohio
1912-1918	Worked for United Gas Improvement Company, Philadelphia, Pa.
1918-1919	Captain, United States Army Air Service
1919-1948	Worked for Bell Telephone Laboratories
1920	Published <i>Airplane Photography</i>
1924	Helped perfect a workable system of transmitting pictures over telephone lines
1927	Directed first practical demonstration of television over substantial distances
1953, Nov. 3	Died, New York, N. Y.

## Scope and Content Note

The papers of Frederic Eugene Ives (1856-1937) and Herbert Eugene Ives (1882-1953), father and son, span the years 1869-1957, with the bulk of the material dating from 1900 to 1952. Scientists and inventors, the pair received credit for over 150 inventions, and their papers include patents and patent applications. The interrelationship of the two men's work precluded the separation of their papers, most of which are arranged in a chronological order. The majority of the papers are concerned with the work of Herbert Ives and are organized into the following series: [General Correspondence](#), [Printed Matter](#), [Speech, Article, and Book File of Herbert Eugene Ives](#), [Miscellany](#), [Addition](#), and [Oversize](#).

Frederic Ives is represented in the collection primarily through his journals in [Miscellany](#), 1870-1930, and by his letters received, which are in the early years of the [General Correspondence](#). The rest of the collection contains articles, correspondence, scrapbooks, and related material pertaining to Herbert Ives.

The elder Ives was a self-educated man and essentially a photographer rather than a scientist. His inventions were the result of his interest in photography. He invented the first simple method of photographic development, was one of the first to produce relatively permanent color photographs, and is credited with the invention of the short-tube optical microscope.

Herbert, following in his father's footsteps, also developed an interest in photography. His work evolved from an interest in optics and photography to serious criticism of Albert Einstein's theory of relativity. During World War I, the United States Army sent Herbert Ives on a special mission to Europe to produce burial photographs of Germany and Italy. After being discharged from the service in 1919, he began work for Bell Telephone Company, where he was employed until his retirement in 1948. During this period he wrote over two hundred articles for scientific journals on subjects as varied as the light of the fire-fly and Dutch impersonations of English gold coins in the sixteenth century.

In 1924, Herbert Ives was credited with developing the first wire telephoto service. In 1927, he directed the first practical demonstration of the production and the sending of live images over wire. The latter experiment was one of the direct forebears of commercial television. Among his nonscientific interests were painting and coin collecting.

Prominent in the collection is the [General Correspondence](#) containing letters received by various members of the Ives family and copies of letters sent by Herbert Ives. Letters in the late 1940s and the early 1950s sent to Herbert Ives from E. E. Butterfield describe the dissatisfaction in certain scientific circles with Einstein's theories. Einstein and his followers are castigated as left-wing radicals responsible for some of the turmoil of the early 1950s.

Among correspondents in the collection are George Eastman, King George V of England, Courtney H. Hodges, Harry S. Truman, and Albert Einstein.

## Arrangement of the Papers

This collection is arranged in six series:

- [General Correspondence, 1893-1957](#)
- [Printed Matter, 1872-1957](#)
- [Speech, Article, and Book File of Herbert Eugene Ives, 1906-1952](#)
- [Miscellany, 1869-1930](#)
- [Addition, 1934-1953](#)
- [Oversize, 1905-1950](#)

## Description of Series

Container	Series
BOX 1-2	<p><b><u>General Correspondence, 1893-1957</u></b></p> <p>Letters received by the Ives family and copies of letters sent. Arranged chronologically.</p>
BOX 3-4	<p><b><u>Printed Matter, 1872-1957</u></b></p> <p>Programs, clippings, Christmas cards, pamphlets, articles, menus, patent descriptions, and newspaper clippings. Arranged chronologically.</p>
BOX 5-7	<p><b><u>Speech, Article, and Book File of Herbert Eugene Ives, 1906-1952</u></b></p> <p>Drafts and printed copies of the speeches and writings of Herbert Eugene Ives. Arranged chronologically.</p>
BOX 8-12	<p><b><u>Miscellany, 1869-1930</u></b></p> <p>Scrapbooks, financial papers, notes, photographs, biographical material, diaries, notebooks, journals, and articles. Arranged by topic and type of material.</p>
BOX 13-15	<p><b><u>Addition, 1934-1953</u></b></p> <p>Correspondence, subject files, writings, and miscellany. Arranged by type of material.</p>
BOX OV 1	<p><b><u>Oversize, 1905-1950</u></b></p> <p>Portfolio of awards, posters, and diplomas of Herbert Eugene Ives. Arranged and described according to the series, containers, and folders from which the items were removed.</p>

# Container List

<b>Container</b>	<b>Contents</b>
<b>BOX 1-2</b>	<b>General Correspondence, 1893-1957</b> Letters received by the Ives family and copies of letters sent. Arranged chronologically.
<b>BOX 1</b>	1893-1952, Feb.
<b>BOX 2</b>	1952, Mar.-1957, undated
<b>BOX 3-4</b>	<b>Printed Matter, 1872-1957</b> Programs, clippings, Christmas cards, pamphlets, articles, menus, patent descriptions, and newspaper clippings. Arranged chronologically.
<b>BOX 3</b>	1872-1957
<b>BOX 4</b>	Undated
<b>BOX 4</b>	Newspaper clippings, 1905-1954
<b>BOX 5-7</b>	<b>Speech, Article, and Book File of Herbert Eugene Ives, 1906-1952</b> Drafts and printed copies of the speeches and writings of Herbert Eugene Ives. Arranged chronologically.
<b>BOX 5</b>	1906-1914
<b>BOX 6</b>	1915-1926
<b>BOX 7</b>	1927-1952, undated
<b>BOX 8-12</b>	<b>Miscellany, 1869-1930</b> Scrapbooks, financial papers, notes, photographs, biographical material, diaries, notebooks, journals, and articles. Arranged by topic and type of material.
<b>BOX 8</b>	Biographical material on Herbert Eugene Ives
<b>BOX 8</b>	Photographs
<b>BOX 8</b>	Patents of Frederic Eugene Ives, 1903-1917
<b>BOX 8</b>	Articles by Mrs. Herbert Ives
<b>BOX 8</b>	Financial reports
<b>BOX 8</b>	Notes and lists
<b>BOX 8</b>	“Simplification of Color Photography,” by Frederic Eugene Ives, American Philosophical Society, 1919
<b>BOX 8</b>	United States Army Air Service, 1918-1919
<b>BOX 9</b>	Scrapbooks of Herbert Eugene Ives
<b>BOX 9</b>	1901-1905, student days, University of Pennsylvania, Philadelphia, Pa.
<b>BOX 9</b>	1906
<b>BOX 10</b>	1911-1916
<b>BOX 10</b>	circa 1930, airplanes and aerial photography

## Miscellany, 1869-1930

Container	Contents
BOX 11	Daily journals
BOX 11	Ives, Frederic Eugene 1870-1930
BOX 12	Ives, Mary Olmstead 1896-1899
BOX 12	Unknown author, 1884
BOX 12	Astronomical notebook, Herbert Eugene Ives, 1898
BOX 12	"Solution of the Problem of Color Photography" (1869) by du Hauron, transcribed by Herbert Eugene Ives,
BOX 12	Bibliography of articles and patents of Herbert Eugene Ives
BOX 12	Portfolio of awards, posters, and diplomas of Herbert Eugene Ives, 1905-1950 <i>See Oversize</i>
BOX 13-15	<b>Addition, 1934-1953</b> Correspondence, subject files, writings, and miscellany. Arranged by type of material.
BOX 13	Correspondence, 1947-1953
BOX 13	Subject file
BOX 13	Poincare's "Principle of Relativity," notebook
BOX 13	Michelson-Morley experiment
BOX 13	Zeeman's coefficient for light of different colors
BOX 13	Writings file
BOX 13	Typescripts
BOX 13	Complete
BOX 13	Fragments
BOX 14	Working drafts
BOX 14	Notes and draft fragments
BOX 14	Charts and equations
BOX 14	Proofs
BOX 14	Notebook, printed articles by Herbert Eugene Ives
BOX 14	1934-1939
BOX 15	1940-1950
BOX 15	Articles, printed
BOX 15	By Herbert Eugene Ives
BOX 15	By others
BOX 15	Miscellany
BOX 15	Negative photocopies
BOX 15	Printed matter
BOX 15	Clippings
BOX OV 1	<b>Oversize, 1905-1950</b> Portfolio of awards, posters, and diplomas of Herbert Eugene Ives. Arranged and described according to the series, containers, and folders from which the items were removed.
BOX OV 1	Miscellany
BOX OV 1	Portfolio of awards, posters, and diplomas of Herbert Eugene Ives, 1905-1950 (Container 12)