## Frederic Eugene Ives and Herbert Eugene Ives Papers

A Finding Aid to the Collection in the Library of Congress

Prepared by David Mathisen



# Manuscript Division, Library of Congress

Washington, D.C.

2010

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## 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; 15 containers plus 1 oversize; 6.8 linear feet Language: Collection material in English with some German

Repository: Manuscript Division, Library of Congress, Washington, D.C.

Abstract: 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 Englavia Ives and his can Harbort Eugen

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 Library's online catalog. They are grouped by name of person or organization, by subject or location, and by occupation and listed alphabetically therein.

#### 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.

Occupations

Inventors.

Photographers.

### Administrative Information

#### 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 <i>Date</i> 1856, Feb. 17	Ives Event Born, Litchfield, Conn.		
1866	Moved to Norfolk, Conn.		
1868	Ended formal schooling		
1868-1870	Served apprenticeship on Litchfield Enquirer		
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 Autobiography of an Amateur Inventor. Privately printed		
1937, May 27	Died, Philadelphia, Pa.		

Herbert Eugene <i>Date</i> 1882, July 31	Ives <i>Event</i> 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 Airplane Photography
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 to1952. 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 <u>Miscellany</u>, 1870-1930, and by his letters received, which are in the early years of the <u>General</u>

<u>Correspondence.</u> 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 <u>General Correspondence</u> 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 General Correspondence, 1893-1957

Letters received by the Ives family and copies of letters sent.

Arranged chronologically.

BOX 3-4 Printed Matter, 1872-1957

Programs, clippings, Christmas cards, pamphlets, articles, menus, patent

descriptions, and newspaper clippings.

Arranged chronologically.

BOX 5-7 Speech, Article, and Book File of Herbert Eugene Ives, 1906-1952

Drafts and printed copies of the speeches and writings of Herbert Eugene

Ives.

Arranged chronologically.

BOX 8-12 <u>Miscellany</u>, 1869-1930

Scrapbooks, financial papers, notes, photographs, biographical material,

diaries, notebooks, journals, and articles.

Arranged by topic and type of material.

BOX 13-15 Addition, 1934-1953

Correspondence, subject files, writings, and miscellany.

Arranged by type of material.

BOX OV 1 Oversize, 1905-1950

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.

## Container List

Container	Contents
вох 1-2	General Correspondence, 1893-1957 Letters received by the Ives family and copies of letters sent. Arranged chronologically.
вох 1	1893-1952, Feb.
BOX 2	1952, Mar1957, undated
вох 3-4	Printed Matter, 1872-1957 Programs, clippings, Christmas cards, pamphlets, articles, menus, patent descriptions, and newspaper clippings. Arranged chronologically.
вох 3	1872-1957
BOX 4	Undated
BOX 4	Newspaper clippings, 1905-1954
вох 5-7	Speech, Article, and Book File of Herbert Eugene Ives, 1906-1952 Drafts and printed copies of the speeches and writings of Herbert Eugene Ives. Arranged chronologically.
вох 5	1906-1914
BOX 6	1915-1926
BOX 7	1927-1952, undated
вох 8-12	Miscellany, 1869-1930 Scrapbooks, financial papers, notes, photographs, biographical material, diaries, notebooks, journals, and articles. Arranged by topic and type of material.
BOX 8	Biographical material on Herbert Eugene Ives
BOX 8	Photographs
BOX 8	Patents of Frederic Eugene Ives, 1903-1917
BOX 8	Articles by Mrs. Herbert Ives
BOX 8	Financial reports
BOX 8	Notes and lists
BOX 8	"Simplification of Color Photography," by Frederic Eugene Ives, American Philosopical Society, 1919
BOX 8	United States Army Air Service, 1918-1919
BOX 9	Scrapbooks of Herbert Eugene Ives
BOX 9	1901-1905, student days, University of Pennsylvania, Philadelphia, Pa.
BOX 9	1906
BOX 10	1911-1916
вох 10	circa 1930, airplanes and aerial photography

Container	Contents
вох 11	Daily journals
вох 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
вох 12	Portfolio of awards, posters, and diplomas of Herbert Eugene Ives, 1905-1950 <u>See Oversize</u>
вох 13-15	Addition, 1934-1953
	Correspondence, subject files, writings, and miscellany.
	Arranged by type of material.
вох 13	Correspondence, 1947-1953
вох 13	Subject file
вох 13	Poincare's "Principle of Relativity," notebook
вох 13	Michelson-Morley experiment
вох 13	Zeeman's coefficient for light of different colors
вох 13	Writings file
вох 13	Typescripts
вох 13	Complete
вох 13	Fragments
BOX 14	Working drafts
BOX 14	Notes and draft fragments
вох 14	Charts and equations
BOX 14	Proofs
BOX 14	Notebook, printed articles by Herbert Eugene Ives
BOX 14	1934-1939
вох 15	1940-1950
BOX 15	Articles, printed
BOX 15	By Herbert Eugene Ives
BOX 15	By others
BOX 15	Miscellany
вох 15	Negative photocopies
вох 15	Printed matter
вох 15	Clippings
BOX OV 1	Oversize, 1905-1950 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)