

University of Chicago Library Special Collections Research Center

# Guide to the Henry Gordon Gale Papers 1889-1948



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## **Descriptive Summary**

**Identifier** ICU.SPCL.GALE

**Title** Gale, Henry Gordon. Papers

**Date** 1889-1948(inclusive)

**Size** 12.5 linear ft. (15 boxes)

**Repository** 1100 East 57th Street  
Chicago, Illinois 60637

**Abstract** The papers of Henry Gordon Gale comprise 12.5 linear feet of personal and professional material, spanning the years 1889-1948. The materials document Gale's career as a physicist, from his time as a student in the early years of the University of Chicago, to his retirement from the Faculty of the Physics Department in 1940. The papers consist of professional and personal correspondence; notes, manuscripts, and reprints; and personal material such as photographs, biographical material, and documents from his Army service and university employment. The collection also includes some correspondence and personal material of his wife, Agnes Spofford Cook Gale.

## **Information on Use**

### **Citation**

When quoting material from this collection the preferred citation is:

Gale, Henry Gordon. Papers, [Box #, Folder #], Special Collections Research Center, University of Chicago Library

### **Biographical Note**

Henry Gordon Gale was born September 12, 1874 in Aurora, Illinois. His father, Eli Holbrook Gale, was a physician trained at University of Pennsylvania. Henry Gale's mother, Adelaide Parker Gale, died six weeks after his birth. He was then raised by his maternal grandparents in rural Illinois.

Gale received his A.B. degree from the University of Chicago in 1896. He continued on to a Ph.D. in Physics in 1899, joining the Faculty in the Department of Physics that same year. He obtained full professorship in 1916 and retired in 1940.

During his career at the University of Chicago, Gale held a number of administrative offices. He served as Dean of the Colleges from 1908 to 1922, Dean of the Ogden Graduate School of Science from 1922 to 1930, and Dean of the Division of the Physical Sciences from 1931 to 1940. Gale was Chairman of the Department of Physics from 1925 to 1940 and Editor of the

Astrophysical Journal from 1912 to 1940. He held the office of president of the Physics Club of Chicago from 1931 until 1940, and was given honorary lifetime membership in the organization upon his retirement. Gale was widely published in the field of astrophysics; with Robert A. Millikan, he co-authored textbooks for high school and college physics courses.

While his career as an astrophysicist was centered at the University of Chicago, Gale also conducted research at Mount Wilson Solar Observatory in Pasadena, California. While working in Pasadena in 1909, Gale was involved in an electrical accident which left him badly burned; he was hospitalized for two months to undergo skin graft operations.

In addition to his career as a physicist, Gale served in the Army during World War I. He attained the rank of lieutenant colonel after serving in the United States and France, was cited for "especially meritorious and conspicuous service" by General Pershing, and received France's decoration of the Legion of Honor.

While a student at the University of Chicago, Gale met Agnes Spofford Cook, daughter of Dr. John W. Cook, educator and first President of Northern Illinois University in DeKalb. Agnes Cook had attended Wellesley College for one year before continuing her studies at the University of Chicago. The two married in 1901, and their daughter Beatrice was born in 1904. Agnes Gale published a number of poems and narratives for children, including an adaptation of Homer, *Achilles and Hector: Iliad Stories Retold for Boys and Girls*.

Henry Gordon Gale died November 16, 1942.

### **Scope Note**

The Henry G. Gale Papers have been divided into four series: Series I: Personal Materials, Series II: Correspondence, Series III: Manuscripts and Reprints, and Series IV: Visual and Oversize Materials.

The concentration of material is from the years 1900 to 1929, constituting an incomplete record of Gale's career. Series I documents Gale's service in the Army during World War I, and also contains material related to the terms of his employment at University of Chicago. Series II contains Gale's correspondence, concentrated in 1928 to 1929. Agnes Gale's correspondence, most often from her husband and her family, is concentrated in the years 1900 to 1906. Series III contains notes from Gale's graduate study, a large amount of undated notes and manuscripts, and reprints of his articles published between 1910 to 1937, most often in the *Astrophysical Journal*. Series IV contains photographs, many of which are unidentified, and oversize material from Series I-III.

### **Related Resources**

The following resources are located in the Special Collections Research Center:

<http://www.lib.uchicago.edu/e/spcl/phyast.html>

### **Subject Headings**

- Gale, Henry Gordon
- Gale, Agnes Spofford Cook
- University of Chicago. Department of Physics
- University of Chicago. Division of the Physical Sciences
- Mount Wilson Solar Observatory
- World War, 1914-1918
- Physics

## **INVENTORY**

### **Series I: Personal**

This series contains personal and biographical materials of Henry G. Gale, and a small number of items belonging to his wife, Agnes Spofford Cook Gale. Included in this series is material related to Gale's Army service during World War I, a reprint of a biographical article appearing in *Astrophysical Journal* after Gale's death, publications of professional organizations to which Gale belonged, and newspaper and magazine clippings pertaining to Gale's work. Papers of Agnes Gale include unrelated periodical clippings, notes, and a small letter opener. Photographs and oversize materials, including Army service documents and newspaper clippings, are found in Series IV: Visual and Oversize Materials.

#### **Box 1**

##### **Folder 1**

University of Chicago employment, correspondence and documents, 1899-1940 (see Box 15)

#### **Box 1**

##### **Folder 2**

Army service, correspondence and documents, 1917-1918

#### **Box 1**

##### **Folder 3-4**

Army service, correspondence and documents, 1918

#### **Box 1**

##### **Folder 5**

Army service, correspondence and documents, 1919

#### **Box 1**

##### **Folder 6**

Army service, correspondence and documents, 1919-1922

#### **Box 1**

##### **Folder 7**

Army service, correspondence and documents, n.d.

#### **Box 1**

##### **Folder 8**

University of Chicago War Service, reprints, 1917

#### **Box 1**

##### **Folder 9**

Reprint, Henry Crew, "Henry Gordon Gale, 1874-1942, " *Astrophysical Journal* 97:2, March 1943

**Box 1**

**Folder 10**

Bulletins of professional organizations, 1926-1940

**Box 1**

**Folder 11**

Newspaper and magazine clippings, n.d.

**Box 1**

**Folder 12**

Agnes Gale, unidentified manuscript, n.d.

**Box 1**

**Folder 13**

Agnes Gale, notebook, n.d.

**Box 1**

**Folder 14**

Letter opener

## **Series II: Correspondence**

This series contains correspondence of Henry Gordon Gale and his wife, Agnes Spofford Cook Gale. Subseries 1, spanning the years 1895-1941, contains general correspondence of Henry Gale. This subseries includes material of both a professional and personal nature. Almost half of the correspondence dates from 1928-1929, while the remainder represents scattered points in his career. Subseries 2, spanning the years 1889-1948, contains personal correspondence written to Agnes Gale by Henry Gale, friends and members of the Cook family. This subseries also includes a small amount of correspondence pertaining to Agnes Gale's literary publications. Correspondence from Henry Gale often uses the nicknames "Bitty Wa" or "Wa Wa" for Agnes Gale, "Buck Wa" for himself, and "Bims" for their daughter, Beatrice. Each subseries is arranged chronologically, then alphabetically by name of correspondent. Oversize materials from this series are found in Series IV: Visual and Oversize Materials, Box 15.

### **Subseries 1: Henry Gordon Gale**

**Box 2**

**Folder 1**

General, 1895

**Box 2**

**Folder 2**

General, 1906

**Box 2**

**Folder 3**

Yerkes Observatory, Mount Wilson Solar Observatory, 1907-1909

**Box 2**

**Folder 4**

Electrical accident, Pasadena, A-G, 1909

**Box 2**

**Folder 5**

Electrical accident, Pasadena, H-O, 1909

**Box 2**  
**Folder 6**  
Electrical accident, Pasadena, P-Z, 1909

**Box 2**  
**Folder 7**  
University of Chicago College Deanship, 1912-1915

**Box 2**  
**Folder 8**  
Mount Wilson Solar Observatory, 1912-1915

**Box 2**  
**Folder 9**  
Yerkes Observatory, 1912-1915

**Box 2**  
**Folder 10**  
General, Adams-Association, 1928-1929

**Box 2**  
**Folder 11**  
General, Bartky-Birge, 1928-1929

**Box 2**  
**Folder 12**  
General, Black-Burns, 1928-1929

**Box 2**  
**Folder 13**  
General, Campbell-Compton, 1928-1929

**Box 2**  
**Folder 14**  
General, Corson-Cutler, 1928-1929

**Box 2**  
**Folder 15**  
General, Dimond-Elliott, 1928-1929 (see Box 15)

**Box 2**  
**Folder 16**  
General, Follett-Frost, 1928-1929

**Box 2**  
**Folder 17**  
General, General Electric-Guggenheim, 1928-1929

**Box 2**  
**Folder 18**  
General, Harding-Hubbard, 1928-1929

**Box 3**  
**Folder 1**  
General, Illinois-Kinsley, 1928-1929

**Box 3**  
**Folder 2**  
General, Lark-Lewis, 1928-1929

**Box 3**

**Folder 3**

General, McBain-Michelson, 1928-1929

**Box 3**

**Folder 4**

General, Miller-Modesti, 1928-1929

**Box 3**

**Folder 5**

General, Newton-Ott, 1928-1929

**Box 3**

**Folder 6**

General, Peoria-Quarrie, 1928-1929

**Box 3**

**Folder 7**

General, Rosenwald-Russell, 1928-1929

**Box 3**

**Folder 8**

General, Sandblad-Slater, 1928-1929

**Box 3**

**Folder 9**

General, Sperry-Swift, 1928-1929

**Box 3**

**Folder 10**

General, Tiffany-Vincent, 1928-1929

**Box 3**

**Folder 11**

General, Wahlin-Wilharm, 1928-1929

**Box 3**

**Folder 12**

General, 1928-1929

**Box 3**

**Folder 13**

Correspondence of others, 1928-1929

**Box 3**

**Folder 14**

Unidentified, 1928-1929

**Box 3**

**Folder 15**

General, 1931-1933 (see Box 15)

**Box 3**

**Folder 16**

General, 1940-1941

**Subseries 2: Agnes Spofford Cook Gale**

**Box 4**

**Folder 1**

Cook, John W., 1889



**Box 4**  
**Folder 2**  
Cook family, 1892  
**Box 4**  
**Folder 3**  
General, 1894  
**Box 4**  
**Folder 4**  
Unidentified, 1894  
**Box 4**  
**Folder 5**  
General, 1895  
**Box 4**  
**Folder 6**  
General, 1896  
**Box 4**  
**Folder 7**  
Cook-Draper, 1897  
**Box 4**  
**Folder 8**  
Gale, Henry G., 1897  
**Box 4**  
**Folder 9**  
Sheppard, J. J., 1897  
**Box 4**  
**Folder 10**  
Cook family, 1898  
**Box 4**  
**Folder 11**  
Gale, Henry G., 1898  
**Box 4**  
**Folder 12**  
Gale, Henry G., 1899  
**Box 4**  
**Folder 13**  
Unidentified, 1899  
**Box 4**  
**Folder 14**  
Gale, Henry G., 1900  
**Box 4**  
**Folder 15**  
Sheppard, J. J., 1900  
**Box 5**  
**Folder 1**  
Cook family, 1901  
**Box 5**

**Folder 2**

Gale, Henry G., January-April 1901

**Box 5**

**Folder 3**

Gale, Henry G., April-August 1901

**Box 5**

**Folder 4**

Herdeen, Margaret, 1901

**Box 5**

**Folder 5**

Cook, John W., 1902

**Box 5**

**Folder 6**

Gale, Henry G., 1902

**Box 5**

**Folder 7**

Cowell, John, 1904

**Box 5**

**Folder 8**

Gale, Henry G., March 1904 (see Box 15)

**Box 5**

**Folder 9**

Gale, Henry G., April 1904

**Box 5**

**Folder 10**

Gale, Henry G., July 1904

**Box 5**

**Folder 11**

Gale, Henry G., August 1904

**Box 5**

**Folder 12**

Gale, Henry G., September 1904

**Box 5**

**Folder 13**

Gale, Henry G., October 1904

**Box 6**

**Folder 1**

Gale, Henry G., November 1904

**Box 6**

**Folder 2**

Gale, Henry G., December 1904

**Box 6**

**Folder 3**

MacLeish-Richardson, 1904

**Box 6**

**Folder 4**

Cook family, 1905

**Box 6**

**Folder 5**

Gale, Henry G., January 1905

**Box 6**

**Folder 6**

Gale, Henry G., February 1905

**Box 6**

**Folder 7**

Gale, Henry G., July 1905

**Box 6**

**Folder 8**

Gale, Henry G., August 1905

**Box 6**

**Folder 9**

Gale, Henry G., December 1905

**Box 6**

**Folder 10**

Judson, Henry Pratt, 1905

**Box 7**

**Folder 1**

Gale, Henry G., January 1906

**Box 7**

**Folder 2**

Gale, Henry G., February 1906

**Box 7**

**Folder 3**

Gale, Henry G., March 1906

**Box 7**

**Folder 4**

Gale, Henry G., April 1906

**Box 7**

**Folder 5**

Gale, Henry G., May 1906

**Box 7**

**Folder 6**

Gale, Henry G., June 1906

**Box 7**

**Folder 7**

Gale, Henry G., July 1906

**Box 7**

**Folder 8**

Gale, Henry G., August 1906

**Box 7**

**Folder 9**

Gale, Henry G., October 1906

**Box 7**

**Folder 10**

Gale, Henry G., n.d., 1906

**Box 7**

**Folder 11**

Gale, Henry G., May 1909

**Box 7**

**Folder 12**

Gale, Henry G., June 1909

**Box 7**

**Folder 13**

Gale, Henry G., n.d., 1909

**Box 7**

**Folder 14**

General, 1913-1948

**Box 7**

**Folder 15**

General, n.d.

**Box 7**

**Folder 16**

Unidentified, n.d.

### **Series III: Manuscripts and Reprints**

Spanning the years 1896-1941, this series contains Gale's notes from lectures, reading, and research; manuscripts composed by Gale and others; and reprints of his publications, which were often produced in collaboration with one or more colleagues. Notes and notebooks generally pertain to Gale's graduate work at University of Chicago; a large amount of this material is undated. Typewritten manuscript material is also undated. Reprints are of articles appearing in scientific journals, most often the *Astrophysical Journal*. Materials from this series have been arranged into three subseries: Notes, Manuscripts, and Reprints. Each subseries has been organized chronologically.

#### **Subseries 1: Notes**

**Box 8**

**Folder 1**

Notebook, Electricity and Magnetism, 1896

**Box 8**

**Folder 2**

Notebooks, Integral Calculus, 1896

**Box 8**

**Folder 3-4**

Notebooks, Wave Motion, 1897

**Box 8**

**Folder 5**

Notebooks, Light, 1897-1898

**Box 8**

**Folder 6**

Notebooks, Analytical Mechanics, 1898

**Box 8**

**Folder 7**

Notebook, Electricity and Magnetism, 1898

**Box 9**

**Folder 1**

Notebook, unidentified, 1898

**Box 9**

**Folder 2**

Notebooks, Theory of Functions of a Complete Variable, 1898

**Box 9**

**Folder 3**

Notebook, Projective Geometry, 1898

**Box 9**

**Folder 4**

Notebook, Kinetic Theory and Thermodynamics, 1898

**Box 9**

**Folder 5**

Notebook, Twisted Curves and Surfaces, 1900

**Box 9**

**Folder 6**

Notebook, unidentified, 1901

**Box 9**

**Folder 7**

Notes, Wave Motion, 1908

**Box 9**

**Folder 8**

Notes, Def. Integrals and Sloughs, n.d. (see Box 15)

**Box 10**

**Folder 1**

Kinetic Theory and Thermo-Dynamics, n.d.

**Box 10**

**Folder 2**

Notes, Nearly Circular Orbits, n.d.

**Box 10**

**Folder 3**

Notes, Partial Differentiation, n.d.

**Box 10**

**Folder 4**

Notebook, Physical Computations, n.d.

**Box 10**

**Folder 5-6**

Notes, Bell lectures, n.d.

**Box 10**

**Folder 7-10**

Lecture notes, n.d.

**Box 10**

**Folder 11**

Notebook, n.d.

**Box 10**

**Folder 17**

Notes, n.d. (see Box 15)

**Subseries 2: Manuscripts**

**Box 11**

**Folder 1**

Manuscript, "The Interplay of Theory and Experiment in Modern Spectroscopy, "n.d.

**Box 11**

**Folder 2**

Manuscripts, A.A. Michelson, "The Effect of the Earth's Rotation on the Velocity of Light, "n.d.

**Box 11**

**Folder 3**

An Account of Scientific Research at the University of Chicago, "n.d.

**Box 11**

**Folder 4**

Miscellaneous manuscripts, n.d.

**Box 11**

**Folder 5**

Student work, 1911-1927

**Subseries 3: Reprints**

**Box 11**

**Folder 6**

1, January 1910

**Box 11**

**Folder 7**

1, January 1912

**Box 11**

**Folder 8**

5, June 1913

**Box 11**

**Folder 9**

2, March 1916

**Box 11**

**Folder 10**

Reprint, Henry G. Gale, "How the Spectroscope Reveals the Structure of Atoms, "  
Bulletin of the Ohio State University, August 15, 1919

**Box 11**

**Folder 11**

5, December 1919; Journal of Geology XXVII: 8, November-December 1919

**Box 11**

**Folder 12**

2, March 1924

**Box 11**

**Folder 13**

3, April 1925

**Box 11**

**Folder 14**

2, March 1929

**Box 11**

**Folder 15**

2, March 1928

**Box 11**

**Folder 16**

Reprint, Henry G. Gale, "A New Ruling Engine, " unidentified imprint, 1935

**Box 11**

**Folder 17**

2, March 1937

**Box 11**

**Folder 18**

Miscellaneous reprints, 1901-1941 (see Box 15)

**Series IV: Visual and Oversize Materials**

This series contains photographs of organizations to which Gale belonged, and several individual portraits, many of which are unidentified. Also included in this series are periodical clippings and a WWI-era map of Northern France. Oversize materials from Series I-III are found in Box 15 of this series.

**Box 12**

**Folder 1**

Photograph, portrait of John Henry Vincent, June 1899

**Box 12**

**Folder 2**

Photograph, group portrait of Wellesley College students, n.d.

**Box 12**

**Folder 3**

Photographs, unidentified portraits, n.d.

**Box 13**

**Folder 1**

Photograph, group portrait of Ordnance Supply School, Camp Jackson, Columbia, S.C.,  
March 1918

**Box 13**

**Folder 2**

Photograph, group portrait of American Physical Society, April 26, 1924

**Box 13**

**Folder 3**

Photograph, group portrait of Association of American Universities, Baltimore, n.d.

**Box 14**

**Folder 1**

Map of Northern France, 1917

**Box 14**

**Folder 2**

Magazine clipping, 1898

**Box 14**

**Folder 3**

Newspaper clippings of Gale's activities, 1924-1929

**Box 15**

**Folder 1**

University of Chicago employment, correspondence and documents, 1899-1940

**Box 15**

**Folder 2**

General correspondence, Dimond-Elliott, 1928-1929

**Box 15**

**Folder 3**

General correspondence, 1931-1933

**Box 15**

**Folder 4**

Agnes Gale, correspondence, Gale, Henry G., March 1904

**Box 15**

**Folder 5**

Notes, Def. Integrals and Sloughs, n.d.

**Box 15**

**Folder 6**

Notes, n.d.

**Box 15**

**Folder 7**

Miscellaneous reprints, 1901-1941