

Frederick Gardner Cottrell Papers

A Finding Aid to the Collection in the Library of Congress



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LC Online Catalog record:

<http://lcn.loc.gov/mm80016998>

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Collection Summary

Title: Frederick Gardner Cottrell Papers

Span Dates: 1896-1951

Bulk Dates: (bulk 1907-1940)

ID No.: MSS16998

Creator: Cottrell, Frederick Gardner, 1877-1948

Extent: 1,000 items ; 6 containers plus 1 oversize ; 2.4 linear feet

Language: Collection material in English

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

Summary: Chemist and inventor. Diaries, notebooks, notes, scientific papers, writings, and miscellany relating primarily to Cottrell's work and daily routines as a research chemist and scientist.

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

Cameron, Frank Thomas, 1909-1984.

Cottrell, Frederick Gardner, 1877-1948.

Daniels, Farrington, 1889-1972.

Royster, P. H. (Percy Hoke), 1888-1966.

Organizations

Research Corporation.

United States. Department of Agriculture.

Subjects

Chemistry.

Electrostatic precipitation--Patents.

Electrostatic precipitation.

Nitric oxide.

Patents.

Science--History--20th century.

Occupations

Chemists.

Inventors.

Administrative Information

Provenance

The papers of Frederick Gardner Cottrell, chemist and inventor, were given to the Library of Congress in 1966 by the Research Corporation.

Processing History

The papers of Frederick Gardner Cottrell were arranged and described in 1981. The finding aid was revised in 2011.

Copyright Status

The status of copyright in the unpublished writings of Frederick Gardner Cottrell is governed by the Copyright Law of the United States (Title 17, U.S.C.).

Access and Restrictions

The papers of Frederick Gardner Cottrell 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, Frederick Gardner Cottrell Papers, Manuscript Division, Library of Congress, Washington, D.C.

Biographical Note

| <i>Date</i> | <i>Event</i> |
|-----------------|--|
| 1877, Jan. 10 | Born, Oakland, Calif. |
| 1896 | B.S., University of California, Berkeley, Calif. |
| 1897-1900 | Chemistry teacher, Oakland High School, Oakland, Calif. |
| 1902 | Ph.D., University of Leipzig, Leipzig, Germany |
| 1902-1911 | Instructor (1902-1906) and assistant professor (1906-1911) in physical chemistry, University of California, Berkeley, Calif. |
| 1903 | Invented Cottrell electrical precipitator |
| circa 1908-1909 | Developed a process for removing water from crude oil |
| 1911-1920 | Chief physical chemist (1911-1914), chief chemist (1914-1915), chief metallurgist (1916-1919), assistant director (1919-1920), and director (1920), United States Bureau of Mines |
| 1912 | Cofounded the Research Corporation to hold and develop his patents for the purpose of awarding scientific grants |
| circa 1917-1918 | Developed a process that reduced the cost of producing helium |
| 1921-1922 | Chairman, a division of chemistry and chemical toxicology of the National Research Council |
| circa 1922 | Developed catalyst which allowed synthetic ammonia to be produced at the United States Government's Muscle Shoals, Tenn., plant |
| 1922-1943 | Director, United States Department of Agriculture, Fixed Nitrogen Research Laboratory (1922-1927); chief, division of fertilizer and fixed nitrogen investigation, Bureau of Chemistry and Soils (1927-1930); and consulting chemist, Bureau of Chemistry and Soils (1930-1940) and Bureau of Plant Industry (1940-1943) |
| 1948, Nov. 16 | Died, Berkeley, Calif. |

Scope and Content Note

The papers of Frederick Gardner Cottrell (1877-1948) span the years 1896-1951, with the period 1907-1940 being particularly well represented. Cottrell, inventor of the electrostatic precipitator that removes pollutants from smoke, was a successful applied scientist whose support of scientific research led to the founding in 1912 of the Research Corporation, an organization designed to benefit the advancement of science through the distribution of grants. The papers are organized into the following series: [Diaries and Personal Notebooks](#), [Miscellaneous Personal Papers](#), [Scientific Papers](#), [Miscellany](#), and [Oversize](#).

Most prominent in bulk as well as in importance are the diaries in the [Diaries and Personal Notebooks](#) series that were used mainly to keep records of names, places, and dates. The diaries complement Cottrell's daily schedules that are found throughout the papers and were kept from 1907 to about 1940. Diaries were assembled as well for other years, but they are fragmentary.

The [Miscellaneous Personal Papers](#) series dates from 1900 to 1948 during which Cottrell retained many of his notes, jottings, and doodles. Although items from Cottrell's early years are present, most of this material falls in the period 1931-1948 while a chemist at the Department of Agriculture. The distinction Cottrell made between diary entries and miscellaneous jottings becomes increasingly tenuous after 1940 and during the last years of his life until his death in 1948.

The [Scientific Papers](#) contain patent papers for his process of producing nitric oxide and for the inventions of Cottrell's associates P. H. Royster and Farrington Daniels. The series includes several holograph documents, graphs, short notes, and three drafts of miscellaneous scientific writings. An essay titled "Inside Doctor Cottrell," by Royster, gives a brief account of certain aspects of Cottrell's life. The series further contains correspondence between several of Cottrell's close associates and Frank Thomas Cameron, apparently preparatory to the latter's writing of *Cottrell: Samaritan of Science*.

The [Miscellany](#) series contains Cottrell's passports, postcards, and memorabilia, while diplomas and certificates of appointment to government posts are located in [Oversize](#).

Arrangement of the Papers

This collection is arranged in five series:

- [Diaries and Personal Notebooks, 1900-1948](#)
- [Miscellaneous Personal Papers, 1900-1948](#)
- [Scientific Papers, circa 1900-1951](#)
- [Miscellany, 1896-1948](#)
- [Oversize, 1896-1939](#)

Description of Series

| <i>Container</i> | <i>Series</i> |
|------------------|---|
| BOX 1-4 | <u>Diaries and Personal Notebooks, 1900-1948</u> Diaries, diary notes, and personal notebooks. Arranged chronologically. |
| BOX 5-6 | <u>Miscellaneous Personal Papers, 1900-1948</u> Notes and miscellaneous jottings and doodles. Arranged chronologically. |
| BOX 6 | <u>Scientific Papers, circa 1900-1951</u> Correspondence concerning Cottrell, patents, graphs, notes, drafts, writings, and miscellaneous scientific papers. Arranged by type of material. |
| BOX 6 | <u>Miscellany, 1896-1948</u> Passports, clippings, postcards, diplomas and certificates of appointment, and memorabilia. Arranged by type of material. |
| BOX OV 1 | <u>Oversize, 1896-1939</u> Diplomas and certificates of appointment. Arranged and described according to the series, containers, and folders from which the items were removed. |

Container List

| <i>Container</i> | <i>Contents</i> |
|------------------|--|
| BOX 1-4 | Diaries and Personal Notebooks, 1900-1948 Diaries, diary notes, and personal notebooks. Arranged chronologically. |
| BOX 1 | Diaries |
| BOX 1 | 1900-1914 (34 vols.) |
| BOX 2 | 1915-1928 (26 vols.) |
| BOX 3 | 1929-1939 (29 vols.) |
| BOX 4 | 1940-1948 (16 vols.) |
| BOX 4 | Personal notebooks |
| BOX 4 | circa 1930-1947 (5 vols.) |
| BOX 5-6 | Miscellaneous Personal Papers, 1900-1948 Notes and miscellaneous jottings and doodles. Arranged chronologically. |
| BOX 5 | 1900-1943 (5 folders) |
| BOX 6 | 1944-1948, undated (4 folders) |
| BOX 6 | Scientific Papers, circa 1900-1951 Correspondence concerning Cottrell, patents, graphs, notes, drafts, writings, and miscellaneous scientific papers. Arranged by type of material. |
| BOX 6 | Patents, graphs, and notes |
| BOX 6 | Drafts, scientific papers, and miscellaneous items |
| BOX 6 | Miscellany, 1896-1948 Passports, clippings, postcards, diplomas and certificates of appointment, and memorabilia. Arranged by type of material. |
| BOX 6 | Passports, photographs, postcards, and memorabilia, circa 1900-1948 |
| BOX 6 | Diplomas and certificates of appointment, 1896, 1903, 1911-1915, 1927, 1939 <i>See Oversize</i> |
| BOX OV 1 | Oversize, 1896-1939 Diplomas and certificates of appointment. |

Oversize, 1896-1939

Container

Contents

Arranged and described according to the series, containers, and folders from which the items were removed.

BOX OV 1

Miscellany

BOX OV 1

Diplomas and certificates of appointment, 1896, 1903, 1911-1915, 1927, 1939 (Container 6)