

# **Louis N. Ridenour Papers**

## **A Finding Aid to the Collection in the Library of Congress**



**LIBRARY OF  
CONGRESS**

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

**2008**

**Revised 2010 April**

Contact information:

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

Additional search options available at:

<http://hdl.loc.gov/loc.mss/eadmss.ms008060>

LC Online Catalog record:

<http://lcn.loc.gov/mm97083966>

Prepared by Joseph K. Brooks

## Collection Summary

**Title:** Louis N. Ridenour Papers

**Span Dates:** 1917-1960

**Bulk Dates:** (bulk 1945-1959)

**ID No.:** MSS83966

**Creator:** Ridenour, Louis N. (Louis Nicot), 1911-1959

**Extent:** 1,300 items ; 9 containers ; 3.6 linear feet

**Language:** Collection material in English

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

**Summary:** Physicist and author. Correspondence, journals, reports, writings, printed matter, photographs, and other items relating to science policy issues concerning nuclear energy and computer technology as well as Ridenour's contribution to the development and application of radar technology during World War II.

## 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

Alsop, Joseph, 1910-1989--Correspondence.  
Baker, Cary F.--Correspondence.  
Benjamin, Curtis G., 1901-1983--Correspondence.  
Bennett, Ralph D.--Correspondence.  
Bowden, B. Vivian--Correspondence.  
Bowles, Edward Lindley, 1897-1990--Correspondence.  
Bryson, Lyman, 1888-1959--Correspondence.  
Cousins, Norman--Correspondence.  
Davison, Peter Hobley--Correspondence.  
Flanagan, Dennis, 1919-2005--Correspondence.  
Handsfield, Hugh, 1911- --Correspondence.  
Haydn, Hiram Collins, 1907-1973--Correspondence.  
Ledgerwood, Byron K.--Correspondence.  
Lessing, Lawrence--Correspondence.  
Levin, Lawrence Meyer, 1898-1968--Correspondence.  
Maurer, Herrymon, 1914-1998--Correspondence.  
Morton, Charles W., 1899-1967--Correspondence.  
Muste, Abraham John, 1885-1967--Correspondence.  
Nagel, Carl E.--Correspondence.  
Nelson, Oliver A.--Correspondence.  
Paterson, Isabel--Correspondence.  
Piel, Gerard--Correspondence.  
Reid, James M.--Correspondence.  
Ridenour, Louis N. (Louis Nicot), 1911-1959.  
Shinohara, Ken'ichi, 1905- --Correspondence.  
Solow, Herbert, 1903-1964--Correspondence.  
Spatz, Carl, 1891-1974.  
Svirsky, Leon, 1904-1974--Correspondence.  
Tovrov, Orin--Correspondence.  
Weeks, Edward, 1898-1989--Correspondence.  
Wilder, Thornton, 1897-1975--Correspondence.  
Wylie, Philip, 1902-1971--Correspondence.

### Organizations

Massachusetts Institute of Technology. Radiation Laboratory.

United States Strategic Air Forces in Europe.  
United States. War Department.

### **Subjects**

Antiaircraft guns.  
Computers.  
Nuclear energy--Government policy--United States.  
Radar in aeronautics.  
Radar.  
Science and state--United States.  
World War, 1939-1945--Aerial operations, American.  
World War, 1939-1945--Antiaircraft artillery operations.  
World War, 1939-1945--Radar.

### **Occupations**

Authors.  
Physicists.

## **Administrative Information**

### **Provenance**

The papers of Louis N. Ridenour, physicist and author, were given to the Library of Congress by his daughters, Nancy Ridenour Buchanan and Eleanor Ridenour Crow, in 1997.

### **Processing History**

The papers of Louis N. Ridenour were arranged and described in 1997. The collection was revised in 2008.

### **Copyright Status**

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

### **Access and Restrictions**

The papers of Louis N. Ridenour 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, Louis N. Ridenour Papers, Manuscript Division, Library of Congress, Washington, D.C.

## **Biographical Note**

<i>Date</i>	<i>Event</i>
1911, Nov. 11	Born, Montclair, N. J.
1932	B.S. in physics, University of Chicago, Chicago, Ill.
1934	Married Gretchen Hinckley Kraemer
1936-1938	Instructor in physics, Princeton University, Princeton, N.J.
1938	Ph.D. in physics, California Institute of Technology, Pasadena, Calif.

1938-1941	Professor of Physics, University of Pennsylvania, Philadelphia, Pa.
1941-1944	Assistant director, Radiation Laboratory, Massachusetts Institute of Technology, Boston, Mass.; headed team that developed SCR 584 gun laying radar
1942-1946	Consultant to the secretary of war; field duty as chief radar advisor in North African, European, and Pacific theaters of World War II
1947-1951	Professor of physics and dean of graduate college, University of Illinois, Urbana, Ill. Editor-in-chief, Radiation Laboratory series of technical books
1948-1952	Chairman, scientific advisory board to the chief of staff, United States Air Force
1951-1954	Vice president, International Telemeter Corp., Los Angeles, Calif.
1952-1953	Visiting professor of engineering, University of California, Los Angeles, Calif.
1954	Published and edited with William A. Nierenberg, <i>Modern Physics for the Engineer</i> (New York: McGraw-Hill. 2 vols.)
1955	Director of program development, Missile System Division, Lockheed Aircraft Corp., Burbank, Calif.
1955-1957	Director of research, Missile System Division, Lockheed Aircraft Corp., Burbank, Calif.
1957-1959	Assistant general manager and chief scientist, Lockheed Aircraft Corp., Burbank, Calif.
1959	Vice president and general manager, Electronics and Avionics Division, Lockheed Aircraft Corp., Burbank Calif.
1959, May 21	Died, Washington, D.C.

## Scope and Content Note

The papers of the physicist Louis Nicot Ridenour (1911-1959) span the years 1917-1960, with the bulk of the material concentrated in the postwar period, 1945-1959. The collection includes correspondence, draft and published writings, photographs, journals, reports, scientific papers, and printed matter arranged alphabetically by type of material.

Ridenour led the team at the Massachusetts Institute of Technology Radiation Laboratory that in the early 1940s developed the SCR 584, a radar device that was key to the first effective gun laying anti-aircraft system. During 1944-1945 while chief of the Advisory Specialist Group of the United States Strategic Air Forces in Europe commanded by Carl Spaatz, Ridenour adapted the SCR 584 to the close control of Allied fighter bombers in foul weather. He pioneered the development of airborne radar and radar controlled bomb sights. Journals from the World War II service file in the collection are a daily record of Ridenour's activities in the European and North African theaters of air operations.

In the postwar period Ridenour endeavored to familiarize the general public with the science and policy issues related to the new technology of atomic weapons and digital computers by writing for publications such as *Atlantic Monthly*, *Fortune*, *Saturday Review of Literature*, *Scientific American*, and in preparing numerous encyclopedia articles. He also sought to reach other scientists and technologists, especially engineers, through articles in specialist publications and by editing and cowriting books such as *Modern Physics for the Engineer* and *Radar Systems Engineering*.

These papers mainly document the writing and editing phase of Ridenour's career. Some of Ridenour's early fiction from his high school and college days and his correspondence as the editor of the University of Chicago's *Daily Maroon* is

included in the early education file. Ridenour's long-term writing projects and consultant relationship with publishers generated a substantial correspondence with editors, coauthors, sources, and readers. Notable correspondents represented in the speeches and writing file include Lyman Bryson, Norman Cousins, Peter H. Davison, Dennis Flanagan, Hiram Haydn, Byron K. Ledgerwood, Larry Lessing, Lawrence M. Levin, Herrymon Maurer, Charles W. Morton, A. J. Muste, Oliver A. Nelson, Isabel Paterson, Gerard Piel, Herbert Solow, and Edward Weeks.

Ridenour's writing and editorial activities also occasioned many letters in the general correspondence. Editors, publishers, and writers not previously listed include Joseph Alsop, Cary F. Baker, Curtis G. Benjamin, Hugh H. Handsfield, Carl G. Nagel, James M. Reid, Leon Svirsky, Orin Tovrov, Thornton Wilder, and Philip Wylie. Scientist with whom Ridenour corresponded include Ralph D. Bennett, Edward L. Bowles, B. Vivian Bowden, and Ken'ichi Shinohara.

## **Arrangement of the Papers**

This collection is arranged alphabetically by subject or type of material.

# Container List

<i>Container</i>	<i>Contents</i>
BOX 1	Biographical material
BOX 1	Death of Ridenour, 1959-1971, undated
BOX 1	Miscellany, 1928-1957, undated
BOX 1	Book binding, 1954-1958
BOX 1	Buchanan, Nancy Ridenour (daughter), 1982-1987, undated
BOX 1	Brookhaven National Laboratory, Camp Upton, N.Y.
BOX 1	Clippings, 1947-1959, undated
BOX 1	Douglas Aircraft Co.
BOX 1	Miscellany, 1945-1948, undated (2 folders)
BOX 1	Project Rand, 1947-1950, undated
BOX 1	Early education
BOX 1	Miscellany, 1917-1931 (1 folder)
BOX 2	(1 folder)
BOX 2	Student newspapers
BOX 2	<i>Daily Maroon</i> , University of Chicago, Chicago, Ill., 1931-1932 (2 folders)
BOX 2	Miscellany, 1923-1926, undated
BOX 2	General correspondence
BOX 2	1931-1954 (4 folders)
BOX 3	1955-1959 (4 folders)
BOX 3	Institute of Radio Engineers, 1953-1956
BOX 3	International Telemeter Corp.
BOX 3	Clippinger, Richard F., 1952, undated
BOX 3	Miscellany, 1952-1954, undated
BOX 4	Job offers, 1941-1948, undated
BOX 4	Lockheed Aircraft Corp.
BOX 4	Miscellany, 1956-1958, undated
BOX 4	Proposal for the creation of Lockheed Electronics and Avionics Division (LEAD), 1959 (3 folders)
BOX 4	Manuals
BOX 4	<i>Analytical Differentiation by a Digital Computer</i> , 1953
BOX 4	<i>Compiler A-2</i> , 1953
BOX 4	Photographs, 1922-1960, undated (1 folder)
BOX 5	(1 folder)
BOX 5	Printed matter, 1945-1959 (2 folders)
BOX 5	Scientific Advisory Board, United States Air Force

## Container List

<i>Container</i>	<i>Contents</i>
BOX 5	Project Lincoln and the Beacon Hill Study Group, 1951-1952
BOX 5	Project Vista, 1951-1952
BOX 5	<i>Research and Development in the United States Air Force</i> , (Ridenour Report), 1949
BOX 5	Scrapbook, 1935, undated
BOX 5	Speeches and writings
BOX 5	Articles and book chapters
BOX 5	<i>American Peoples Encyclopedia</i> , 1955
BOX 5	<i>Atlantic Monthly</i> , 1946-1957, undated (2 folders)
BOX 6	<i>Book of Science</i> , Grolier Society, 1946, undated
BOX 6	<i>Collier's Encyclopedia</i> , 1952-1959, undated
BOX 6	<i>Control Engineering</i> , 1955, undated
BOX 6	<i>Electronics</i> , 1954
BOX 6	<i>Encyclopedia Americana</i> , 1947-1954
BOX 6	<i>Encyclopedia Britannica</i> , 1945-1957
BOX 6	<i>Fortune</i> , 1946-1956, undated
BOX 6	<i>Look</i> , 1952-1955
BOX 6	Miscellany
BOX 6	Drafts, 1946, n.d
BOX 6	Published articles, 1945-1958, undated (2 folders)
BOX 7	(1 folder)
BOX 7	<i>An Outline of Man's Knowledge</i> , 1957-1959, undated
BOX 7	<i>Saturday Review of Literature</i> , 1946-1959, undated
BOX 7	<i>Scientific American</i> , 1951-1956, undated
BOX 7	<i>Tele-Tech</i> , 1951-1952, undated
BOX 7	<i>World Book Encyclopedia</i> , 1957, undated
BOX 7	<i>Virginia Quarterly Review</i> , 1954-1959, undated
BOX 8	Books
BOX 8	McGraw-Hill handbook series, 1953-1957, undated (2 folders)
BOX 8	<i>Modern Physics for the Engineer</i>
BOX 8	Miscellany, 1952-1958 (2 folders)
BOX 8	Permissions, 1953-1954
BOX 8	<i>Radar Systems Engineering</i> , 1956-1959, undated
BOX 8	Unidentified work, undated
BOX 8	Fiction
BOX 8	Miscellany, 1934-1947, n.d
BOX 8	<i>Pilot Light of the Apocalypse</i> , 1945-1957, undated
BOX 9	Scientific papers
BOX 9	"Artificial Radioactivity Produced by Alpha-Particles," <i>Physical Review</i> , 1937
BOX 9	Miscellany
BOX 9	Drafts with related data, 1934-1947, undated
BOX 9	Published papers, 1931-1949
BOX 9	Speeches and statements
BOX 9	Miscellany, 1946-1948, undated

## Container List

*Container*

*Contents*

---

BOX 9	Mutual Insurance Co., Chicago, Ill., two hundredth anniversary, 1951-1952, undated
BOX 9	World War II service
BOX 9	Journals, 1942-1945
BOX 9	Miscellany, 1942-1946