

## **MS-584: Dr. Richard A. DeWall Papers**

**Collection Number:** MS-584

**Title:** Dr. Richard A. DeWall Papers

**Dates:** 1948-2016 (bulk 1955-1989)

**Creator:** DeWall, Richard A., 1926-2016

### **Summary/Abstract:**

The Dr. Richard A. DeWall Papers contain material from Dr. DeWall's lengthy career. Within the collection there are copies of publications, patent documentation, and presentation slides created by Dr. DeWall. The material mostly relates to Dr. DeWall's invention of the bubble oxygenator. However, there are some materials from his efforts to create a medical school at Wright State University.

**Quantity/Physical Description:** 1.68 linear feet

**Language(s):** English

### **Repository:**

Special Collections and Archives, University Libraries, Wright State University, Dayton, OH 45435-0001, (937) 775-2092, [library-archives@wright.edu](mailto:library-archives@wright.edu)

**Restrictions on Access:** There are no restrictions on accessing material in this collection.

### **Restrictions on Use:**

Copyright restrictions may apply. Unpublished manuscripts are protected by copyright. Permission to publish, quote, or reproduce must be secured from the repository and the copyright holder.

### **Preferred Citation:**

[Description of item, Date, Box #, Folder #], MS-584, Dr. Richard DeWall Papers, Special Collections and Archives, University Libraries, Wright State University, Dayton, Ohio

### **Acquisition:**

The collection was donated to Special Collection and Archives, Wright State University Libraries, Donated by Diane DeWall on April 1, 2017

### **Other Finding Aid:**

The finding aid is available on the Special Collections & Archives, Wright State University Libraries web site at <https://www.libraries.wright.edu/special/collectionguides/files/ms584.pdf>. It is also available in the OhioLINK Finding Aid Repository at <http://ead.ohiolink.edu/xtf-ead/>.

### **Physical Characteristics and Technical Requirements:**

A lightbox will be helpful for viewing the 35mm slides, as well as the lantern slides, in the collection.

**Related Material:**

Interview with Richard DeWall, 1984 May 5, Wright State University, Boonshoft School of Medicine Oral History Project, [https://corescholar.libraries.wright.edu/med\\_oral\\_history/34/](https://corescholar.libraries.wright.edu/med_oral_history/34/).

Interview with Richard DeWall, 1998 Oct. 28, Minnesota Historical Society, Pioneers of the Medical Industry in Minnesota, [https://www.mnhs.org/collections/medTech/bio\\_dewall.php](https://www.mnhs.org/collections/medTech/bio_dewall.php)

**Separated Material:**

Local history materials created by Dr. DeWall's wife Diane DeWall, and received with the collection, have been separated and will be processed separately.

**Processed by:** Finding aid written according to DACS standards by Daniel Willis, April 2021.

**Arrangement:**

The collection is arranged in 6 series:

- Series I, Publications, 1948-2016
- Series II, Newspaper Clippings, 1957-2016
- Series III, Awards, 1955-2005
- Series IV, Correspondence, 1955-2005
- Series V, Patents, 1956-1987
- Series VI, Photos and Slides, 1951-2004

**Biographical/Historical Note:**

Richard DeWall was born December 16<sup>th</sup>, 1916 in Appleton, Minnesota. He grew up in Morris, Minnesota, became an Eagle Scout, and joined the United States Navy. After he left the Navy in 1945, he attended the University of Minnesota, where he graduated in 1949 and earned his M.D. in 1953. He stayed at the University of Minnesota and worked with Dr. Owen Wangenstein and Dr. C. Walton Lillehei and began working on developing new methods to perform open heart surgery.

In 1955, Dr. DeWall invented the first portable and workable bubble oxygenator. This device, called the DeWall Bubble Oxygenator, made it easier for doctors to conduct open heart surgery and provide improved methods of care to countless patients. It quickly became the standard for heart surgery around the world. He worked as a research assistant at University of Minnesota until 1956, and return in 1959 to become an instructor in surgery. He departed the University of Minnesota in 1962 and moved to Chicago where he worked as a professor at the Chicago Medical School.

At the behest of Virginia Kettering, Dr. DeWall moved to Dayton in 1966 to establish an open-heart surgery program at the Kettering Hospital. He served as Chief of Surgery at the Cox Heart Institute and performed the first open heart surgery. Shortly after arriving in Dayton, Dr. DeWall determined the city needed its own medical school and endeavored to establish one. In 1970, after three years of work, he sent a proposal to the Ohio Board of Regents where he outlined the

need and feasibility of creating a medical school. This proposal became the Boonshoft School of Medicine at Wright State University.

Dr. DeWall died at his home in Oakwood, Ohio, on August 15, 2016.

### **Scope and Content Note:**

**Series I, Articles and Publications**, contains DeWall's Curriculum Vitae, thesis, and articles and other publications he produced. It also contains article from other authors (several concerning Lillehei) that DeWall kept for his own use. Materials in this series date from 1948 to 2016.

**Series II, Newspaper Clippings about DeWall**, contains newspaper articles about Dr. DeWall and his accomplishments. Most notably, there are copies of a Dayton Daily News article discussing a meeting between Dr. DeWall and a young boy named Josh Hennessy who received surgery using methods pioneered by DeWall. Materials in this series date from 1957 to 2016.

**Series III, Awards**, contains awards and commendations bestowed upon Dr. DeWall by the American Medical Association and others for his contributions to the advancement of heart surgery. Materials in this series date from 1955 to 2005.

**Series IV, Correspondence**, includes letters sent to Dr. DeWall from friends, professional acquaintances, and former patients. Notably it contains a letter from one Josh Hennessy, with whom Dr. DeWall appeared in a Dayton Daily News article. Materials in this series date from 1955 to 2005.

**Series V, Patents**, contains copies of US and Canadian patents (and some related correspondence) for various medical devices developed by Dr. DeWall and others, Materials in this series date from 1956 to 1987.

**Series VI, Photos and Slides**, contains a collection of photos and slides (both glass and 35mm) showcasing Dr. DeWall and his oxygenator. There are several glass slides containing images of an unidentified individual undergoing surgery, Materials in this series date from 1958 to 1986.

### **Subject Terms**

#### **Persons/Families**

DeWall, Richard A., 1926-2016

Lillehei, C. Walton, 1918-1999

#### **Organizations/Corporate Names**

University of Minnesota. College of Medicine and Surgery

Kettering Medical Center -- History

Wright State University. Boonshoft School of Medicine--History

**Places**

Dayton (Ohio) -- History

**Subjects (General)**

Oxygenators

Cardiology—History

Heart—Surgery

Heart surgeons

**Material Types**

Newspaper clippings

Slides (photographs)

Photographs

Correspondence

## Collection Inventory

<b>Box</b>	<b>File</b>	<b>Description</b>	<b>Date</b>
<b>Series I: Publications</b>			<b>1948-2016</b>
1	1	Loose copy of Dr. DeWall's Thesis and accompanying notes	1957 June
1	2	Loose copy of Dr. DeWall's Thesis	1961 December
1	3	Bound copy of Dr. DeWall's Thesis	1961 December
1	4	Dr. DeWall's Curriculum Vitae	Circa 2008
1	5	List of Dr. DeWall's Publications	Circa 1966
1	6	"A Simple, Expendable, Artificial Oxygenator" article by Dr. DeWall	1956 August
1	7	"Theme and Variations on Blood Oxygenators" article by Dr. DeWall	1961 December
1	8	"A hard-shell temperature-controlling Disposable Blood Oxygenator" article by Dr. DeWall	1966 September
1	9	"Evaluation of Mechanical Heart Valves" article by Dr. DeWall	2000
1	10	"Origin of the Helical Reservoir Bubble Oxygenator" article by Dr. DeWall	2003
1	11	"Evolution of the Helical Reservoir Pump-Oxygenator" article by Dr. DeWall	2003
1	12	"Origins of Open-Heart Surgery at the University of Minnesota" article by Dr. DeWall	2011 April
1	13	DeWall's draft of "Origins of Open-Heart Surgery"	2011
1	14	"Brain Perfusions in Dogs with Artificially Oxygenated Blood" article by Viking Olan Bjork	1948
1	15	Collection of Medical Articles requested by Dr. DeWall in 2004	1957, 1959, 1969
1	16	Article about the development of Open-Heart Surgery by C. W. Lillehei	1982
1	17	Collection of seven articles about Heparin	1984-1990
1	18	Collection of articles from a binder labelled "Heparin"	1939, 1985, 1990, 2001
2	1	Bound collection of Articles written by Dr. DeWall	1954-1957
2	2	Large bound collection of Articles written by Dr. DeWall	1954-1958
2	3	Summary of Proposal to the Ohio Board of Regents about establishing a Medical School at Wright State	1970
2	4	Review Copy of the full Proposal to the Ohio Board of Regents	1970
3	1	Press Release by C. W. Lillehei	1957
3	2	Tribute for C. Walton Lillehei	1999
3	3	Facts about C. W. Lillehei and the first Heart	2010

<b>Box</b>	<b>File</b>	<b>Description</b>	<b>Date</b>
		Machine	
3	4	Boonshoft School of Medicine Biography of Dr. DeWall	2016
3	5	Announcement of Dr. DeWall's Passing	2016
3	6	Ohio State Medical Association Memorial Resolution for Dr. DeWall	2016
3	7	"The Surgeon Maker" article about University of Minnesota	1979
3	8	University of Minnesota Medical Bulletin	1988
3	9	Business Week Magazine	1968
3	10	"Community!": The Wright State Magazine" Issue	2006
3	11	Wright State's 17 <sup>th</sup> annual Commencement Program	1984
3	12	Wright State University Note and Events Volume 4, Number 4	1973
<b>Series II: Newspaper Clippings</b>			<b>1958-2006</b>
3	13	Newspaper Clippings About Dr. DeWall	1968-2006
3	14	Sleeved Newspaper Clippings about DeWall	1958, 1984-2000
3	15	Newspaper Clippings on Scrapbook pages	1958-1962
3	16	Kettering Medical Center Caring Newsletters	1978, 1980
<b>Series III: Awards</b>			<b>1955-2012</b>
3	17	Certificate of Merit Awarded by the American Medical Association	1955
3	18	Certificate of Appreciation from the American College of Surgeons	1957
3	19	Hektoen Gold Medal Certificate Awarded by the A.M.A.	1957
3	20	Certificate of Merit Awarded by the A.M.A.	1958
3	21	Dr. DeWall's Honorary Membership to the Minnesota Surgical Society	1975
3	22	Wright State University Annual Distinguished Guest Dinner Meeting	1999
3	23	Overview of the Dawn of Open-Heart Surgery Symposium	2004
3	24	Heart Hospital Journal's Recognition of Dr. DeWall	2005
3	25	Academy of Medical Device Innovators Conference Handout	2012
3	26	Letter from Craig R. Vocelka regarding Dr. DeWall's Gibbon Award	1996
<b>Series IV: Correspondence</b>			<b>1955-2005</b>
3	27	Undated Correspondence	undated

<b>Box</b>	<b>File</b>	<b>Description</b>	<b>Date</b>
3	28	Collection of Letters from Patients	1955, 1978, 2000
3	29	Correspondence from the 1950's to the 1980's	1955-1984
3	30	Correspondence from the 1990's	1996-1999
3	31	Correspondence from the 2000's	2000-2005
<b>Series V: Patents</b>			<b>1956-1987</b>
4	1	Correspondence and attached Patents Dr. DeWall was researching	1956-1984, 1987
4	2	Correspondence from Lloyd Mason and attached copies of DeWall's early patents	1956-1970, 1991
4	3	Correspondence from Lloyd Mason and attached copies of DeWall's patents	1973, 1976, 1980, 1985
4	4	U.S. Patent no. 2,854,002 for DeWall's Oxygenator	1958 September
4	5	U.S. Patent no. 2,972,349 for DeWall's Capillary Oxygenator	1961 February
4	6	U.S. Patent no. 2,981,253 for DeWall's Oxygenator	1961 April
4	7	Information about DeWall's U.S. Patent no. 3,256,883	1966 June
4	8	U.S. Patent no. 3,717,174 for DeWall's Perfusion Safety Valve	1973 February
4	9	U.S. Patent no. 3,946,735 for DeWall's Medical Drainage Device	1976 March
4	10	U.S. Patent no. 3,994,689 for DeWall's Metabolic Bubble Oxygenator	1976 November
4	11	U.S. Patent no. 4,203,944 for DeWall's Respiratory Gas Assembly	1980 May
4	12	Canadian Patent no. 793,055 for DeWall's Oxygenator with Heat Exchanger	1968 August
4	13	Canadian Patent no. 999,499 for DeWall's Perfusion Safety Valve	1976 November
4	14	Canadian Patent no. 1,014,443 for DeWall's Metabolic Bubble Oxygenator	1977 July
4	15	Canadian Patent no. 1,050,846 for DeWall's Defoamer for Bubble Oxygenator	1979 March
4	16	Canadian Patent no. 1,054,011 for DeWall's Bubble Oxygenator with Ramp Type Heat Exchanger	1979 May
<b>Series VI: Photos and Slides</b>			<b>1951-2004</b>
4	17	Photos of Dr. DeWall at Events	undated
4	18	Photos of Dr. DeWall	undated
4	19	Photos of the DeWall Oxygenator	undated
4	20	Photos of Dr. DeWall and his Oxygenator	undated
4	21	Photos of Surgery involving the Oxygenator	undated

<b>Box</b>	<b>File</b>	<b>Description</b>	<b>Date</b>
4	22	Photo Negatives	undated
4	23	Photos of Nu Sigma Medical Fraternity	1951
4	24	Photo from the 4 <sup>th</sup> Annual Lillehei Heart Institute Symposium	2004
4	25	Photo Grade Copies of an Article and Accompanying negative presses	1957
4	26	Photo of Dr. DeWall receiving an honorary Doctorate of Science from Wright State	undated
4	27	Photos of Oxygenator Schematics	undated
4	28	Slide descriptions and documentation for the Baxter Mechanical Valve Slides	1986
4	29	Baxter Mechanical Valve Slides	1986
4	30	Collection of slides detailing the history of the Oxygenator	1954-1956
5	1	Glass slide: Image of an aorta aneurysm	Undated
5	2	Glass slide: Image of an aorta aneurysm	Undated
5	3	Glass slide: X-ray of a chest	Undated
5	4	Glass slide: X-ray of an aorta aneurysm	Undated
5	5	Glass slide: Image of heart valve? Lump of tissue?	Undated
5	6	Glass slide: Diagram of heart chambers	Undated
5	7	Glass slide: Diagram of a heart	Undated
5	8	Glass slide: Diagram of a heart	Undated
5	9	Glass slide: Diagram of a heart	Undated
5	10	Glass slide: Diagram of a heart	Undated
5	11	Glass slide: Image of a Herniotomy at Dr. Alex H. Ferguson's Clinic	Undated
5	12	Glass slide: Image of A. F. Ochsner	Undated
5	13	Glass slide: Image of John B. Murphy	Undated
5	14	Glass slide: Cross-section of a multiple-unit oxygenator	Undated
5	15	Glass slide: Image of a heart valve	Undated
5	16	Glass slide: Magovern-Aortic Heart Valves	Undated
5	17	Glass slide: Dr. Truman W. Miller's Surgical Clinic at Maurice Porter Hospital	Undated
5	18	Glass slide: Medical Staples?	Undated
5	19	Glass slide: Schematic of a heart valve	Undated