

**MS-88, Max Baker Aviation Collection**

**Collection Number:** MS-88

**Title:** Max Baker Aviation Collection

**Dates:** 1904-1967

**Creator:** Baker, Max

**Summary/Abstract:** Max Baker was an engineer with a keen interest in the Wright Brothers and early aviation. His collection includes copies of his research papers on technical aspects of the invention of flight, copies of Wilbur Wright's diaries and correspondence with Chanute, copies of the Wrights' patents, photographs of Wright propellers, wind tunnels, and various other experimental equipment, Baker's correspondence with aviation experts and enthusiasts, and drawings and blueprints of Wright aircraft and equipment, including a drawing of the engine Charles Taylor designed and built for the 1903 Wright Flyer.

**Quantity/Physical Description:** 2.5 linear feet

**Language(s):** English

**Repository:**

Special Collections and Archives, Paul Laurence Dunbar Library, Wright State University, Dayton, OH 45435-0001, (937) 775-2092

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

**Restrictions on Use:**

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**Preferred Citation:**

MS-88, Max Baker Aviation Collection, Special Collections and Archives, University Libraries, Wright State University, Dayton, Ohio.

**Acquisition:** The collection was accessioned into the Wright State University Department of Archives & Special Collections in October 1994. It was donated by Max Baker's son, Thomas Baker of Birmingham, Alabama.

**Related Material:**

MS-1 Wright Brothers Collection

MS-286 Charlie Taylor - Howard DuFour Collection

**Processed by:** Kris Moore, May 1991

**Arrangement:**

The collection is arranged into 7 series:

- Series 1: Max Baker research materials
- Series 2: Copies of the Wright Brothers' material
- Series 3: Photographs
- Series 4: Max Baker Correspondence
- Series 5: Oversized Drawing
- Series 6: Miscellaneous Materials
- Series 7: Published Materials

**Biographical Note:**

Max Baker was born in Dayton, Ohio. As a young boy, he witnessed the Wright Brothers flights around 1910-1915. From that young age, he was hooked on the flying machines and how they worked.

Baker attended Miami University and studied advanced mathematics at Ohio Northern University. He worked for General Motors Research in Moraine City, Ohio, from 1924-1926. From 1926-1929, he worked at the Pontiac Motor Car Division, In 1929, Baker went to work for the Waco Aircraft Company, where he designed airplanes, In 1938, he worked for Lockheed Aircraft Company, While there, he designed British Bombers for Lockheed's contract with the British government. In 1939, Baker returned to Waco Aircraft Company as assistant chief engineer. In 1947, he returned to General Motors Inland Division as a project engineer.

Upon Orville Wright's death in 1948, Baker assisted the technical advisor to the Wright Estate, Harvey Geyser. This enabled Baker to gather data for his research about the Wright Brothers.

**Scope and Content**

Series 1 is a collection of Max Baker's research papers. Many of the papers are about the Wright Brothers and their contributions to aviation and engineering. The most formal paper is Baker's "The Wright Brothers as Aeronautical Engineers." Baker presented most of these papers at engineering society meetings, where he also presented slide-shows. A slide-show script is also included. Max Baker's patent of the drive shaft is also in this series.

Series 2 contains copies of the Wright Brothers materials and research. Included are copies of Wilbur Wright's diaries (1904,1905, and 1908), Wilbur Wright's correspondence with Octave Chanute (1901-1903), and their various patents. Wilbur Wright's article "Experiences and Observations in Soaring Flight" and research about Orville Wright's wind tunnel is also included.

Series 3 is Max Baker's photograph collection. Included are photographs of Max Baker, photographs and negatives of the Wright Brothers' engines, wind tunnel and its components, the

Wright propellers, and various equipment and experiments. Max Baker made the glass slides from the photos to use in his lectures.

Series 4 is Max Baker's correspondence which spans 1940-1967. The correspondence includes contracts with individuals and institutions about Baker's research. Some of the correspondence is with Orville Wright's brother-in-law Henry Haskell. The letters discuss upcoming articles about the Wright Brothers, including a piece in the Encyclopedia Britannica.

Series 5 consists of oversized drawings. These include drawings of the Wright's' 1903 aircraft and engine, their 1905 aircraft, their 1903 airplane propeller and starting trolley details, Orville's wind tunnel and wind tunnel tests, their 1903 airplane, and two large photographs of wind tunnel testing equipment. Most valuable is a drawing of an engine by the Wright's mechanic, Charlie Taylor. Incidentally, the drawing was commissioned by Henry Ford of Ford Motor Company. All of these over-sized drawings are kept in the archive's over-sized file.

Series 6 consists of miscellaneous items such as an airmail stamp commemorative and newspaper articles. Most of the newspaper articles are from the 1938, 1949, and 1950 Dayton newspapers. These include articles about the Wright Brothers and their work in Dayton. Other articles are about the contribution of replicas that were donated to Miami University and Oberlin College. A Kansas City Star column by Henry Haskell describing some of the contributions of the Wright Brothers and Max Baker's research is also included.

Series 7 consists of published materials. These include various professional journals, which are grouped by titles, span 1916-1945. One-of-a-kind journals are in files titled "Miscellaneous Journals." Max Baker used these materials in his job as an aircraft engineer and his research about the Wright Brothers. The journal U.S. Services, contains an article about the Wrights' 1903 airplane.

## **Subject Terms:**

### **Persons/Families**

Wright, Orville, 1871-1948

Wright, Wilbur, 1867-1912

### **Subjects (General)**

Aeronautics – History – 20<sup>th</sup> century

Wind tunnels – History

### **Material Types**

Blueprints

Newspaper clippings

Photographs

## Collection Inventory

### **Series I: Max Baker's Research**

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
		<b>Patent</b>	
1	1	Papers	1946-1950
	2	Incomplete Papers	1949
	3	Max Bakers Drive Shaft Patent	1956

### **Series II: Wright Brothers' Materials**

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
1	4	Wilbur Wright's Correspondence	1901
	5	Wilbur Wright's Correspondence	1902
	6	Wilbur Wright's Correspondence	1903
	7	Wilbur Wright's Diary (photocopy)	1904
	8	Wilbur Wright's Diary (photocopy)	1905
	9	Wilbur Wright's Diary (photocopy)	1908
	10	Wind Tunnel and Wind Tunnel Research	
	11	Wright Brothers' Patents	1906, 1909, 1911, 1913, 1914
	12	"Experiences and Observations in Soaring Flight" by Wilbur Wright	1903

### **Series III: Photographs**

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
2		Glass Plate Slides	
3	1	Photos of Wright Brothers' Items	
	2	Negatives From Photographs	
	3	Miscellaneous Photographs	
	4	Photographs of Max Baker	
	5	Photograph Duplicates	

### **Series IV: Max Baker's Correspondence**

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
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3	7	Correspondence	1940, 1945, 1949-1953, 1954, 1967
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**Series V: Oversized Drawings**

Oversized 1903 airplane, 1903 aircraft and engine, 1903 propeller and starting trolley  
 Drawer #76 details, 1905 aircraft, wind tunnel and tests, photographs of wind tunnel testing  
 Folder 1 equipment, and Charlie Taylor’s drawing of the engine

**Series VI: Miscellaneous Materials**

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
4	1	Newspaper Articles	1938, 1949
	2	6 cent airmail postage stamp commemorative	1953

**Series VII: Published Materials**

<u>Box</u>	<u>File</u>	<u>Description</u>	<u>Date</u>
4	3	<u>Forest Product Laboratory Journal</u>	1916, 1937, 1942
	4	<u>A Chronicle of the Aviation Industry in America</u>	1903-47, 1948-49
	5	<u>Baldwin Locomotive Works Newsletter</u>	1944-46
	6	<u>The Aeronautical Journal</u>	1916, 1921
	7	Society of Aeronautical Engineers (SAE) Pamphlets	
		<u>The Engineers’ Digest</u>	1940
		“Gun Recoil,” <u>The Aircraft Engineer</u>	1939
		Bendix Airplane Wheels and Brakes	
		“Stress Analysis Utilization in Dynamic Testing,” Firestone Aircraft Company	1946
		Douglas Aircraft Company Report	1936
	8	Technical Reference and Bibliography	
		“Strength of Aircraft Elements,” War Department Manual	1945
	9	<u>Aircraft Lubrication</u>	1945
		<u>U.S. Air Services</u> (contains article about the Wright 1903 airplane)	1928
	10	“Performance Flight Testing Methods in Use by Flight Section,” U.S. Air Force Report	1944
	11	Metallic and Industrial Minerals: Sources and Uses	
5	1	Vibration Analysis of a Wing Mounting Flexibly Suspended Engines	1943
	2	<u>Cours de Mecanique</u>	1918
	3	<u>Cours de Mecanique</u>	1920
	4	<u>Cours de Mecanique</u>	1923