The Descriptive Finding Guide for the Sam D. Heron Personal Papers
SDASM.SC.10068

Alan Renga
San Diego Air and Space Museum Library and Archives
10/22/2014
2001 Pan American Plaza, Balboa Park
San Diego 92101
URL: http://www.sandiegoairandspace.org/
Language of Material: English
Contributing Institution: San Diego Air and Space Museum Library and Archives
Title: Sam D. Heron Personal Papers
source: Heron, Sam D.
Identifier/Call Number: SDASM.SC.10068
Physical Description: 1.3 Cubic FeetThree (3) archival boxes, 15x10x5 inches
Date (inclusive): 1891-1963
Abstract: Sam Heron was an aviation engineer, technician, and inventor who helped to develop the first successful air-cooled engine systems, as well as making various other notable contributions to the field. This collection contains materials related to his life.
Conditions Governing Access
The collection is open to researchers by appointment.
Conditions Governing Use
Some copyright may be reserved. Consult with the library director for more information.
Preferred Citation
[Item], [Filing Unit], [Series Title], [Subgroups], [Record Group Title and Number], [Repository “San Diego Air & Space Museum Library & Archives”]
Immediate Source of Acquisition
The materials in this Collection were donated to the San Diego Air and Space Museum.
Biographical / Historical
Sam Dalziel Heron, son of Daziel Heron (an actor) and Isabella Ann Coxon Heron, was born in on May 18, 1891, in Newcastle-on Tyne, England. He attended Alleyns School in Dulwich, the Goldsmith College (London University) and Durham University in Newcastle-on Tyne. While attending night school he completed his apprenticeship as a mechanic and foundry man at Thames Ironworks Shipbuilding and Engineering Company. He also served as draftsman and designer with Sir W.G. Armstrong, Whitworth and Company Ltd. In this period from 1910-1914 his experience included machining and later drafting and designing parts for aircraft piston engines. He helped to develop the first successful aluminum air cooler engine cylinders at the Royal Aircraft during World War I. He came to America in 1921 to work for the Air Force on the development of the two-valve air-cooler cylinder. In a short time Sam Heron proved through his experimental work that the air-cooler cylinder could successfully match the liquid-cooled. Sam’s demonstration likely sparked the air-cooled engine revolution and all of the later successful air-cooled engines incorporated in some form or another most of the features he utilized. Once it achieved serious acceptance, the air-cooled engine never lost its ascendancy in this country and world-wide air transport was built around it, altering the field of aviation. Sam Heron’s other important achievements included his work on fuel. His research ranged from the development of fuel test engines through the setting of standards to the utilization of complex hydrocarbon chemistry. In 1934 he joined the Ethyl Corp in Detroit as Director of Aeronautical research, a position he held until his retirement in 1946. After his retirement he served as consultant to the government, Ethyl Corp and other firms. Heron’s accomplishments in this field were acknowledged with many prestigious awards and medals, such as the Manly Medal (1928), the Horning Memorial Medal (1947), and the Certificate of Merit (1948). He died in July 1963, in Detroit, Michigan.
Scope and Contents
Three (3) archival boxes, 15x10x5 inches. This collection is a combination of business correspondence, personal correspondence, research drafts, sketches and pictures, photographs, negatives, scripts, satirical documents, a lawsuit, booklets, full-size blueprints, and identification (including two passports) and certification. The collection is in good condition.
There is a biography photograph file in this collection labeled 02-H-00232-00239 in Box 3, Folder 31.
Related Materials
Robert Kerley Personal Papers
https://www.flickr.com/photos/sdasmarchives/sets/72157634984070823/with/9465771721/
Subjects and Indexing Terms
United Aircraft Corporation
Heron, Sam D.
Curtiss-Wright Corporation
Doolittle, James Harold
Wright Aeronautical Corporation

Box 01
Folder 01 - Heron Report - Laboratory Expenditures with Paper fasteners

Physical Description:
1. Envelope holding three Brass Prong Paper Fasteners and Washers. 2. Folder that contained the expenditure documentation. 3. Thirteen pages of laboratory expenditures and a calculator paper with digits.

Folder 02 - Business Correspondence 1928-1933

Physical Description:
1. Forty-eight pages regarding the Anglo-American Oil Company Limited Correspondence, June, 1928 to December, 1931. 2. Two pages of letters regarding Ethyl Gasoline Corp. Correspondence, January 24, 1928. 3. Two recipe pages and a letter from John R. Cautley, March 28, 1929. 4. From: W.E. Gilmore, Brigadier General, Air Corps, Chief of Division, To: S. D. Heron, June 29, 1929. 5. Two half page letters to Chrysler Motors Engineering Department, August, 1929. 6. Nine pages of correspondence regarding Ethyl Gasoline Corporation. 7. Three pages of correspondence associated with F.J. Hooven, August, 1933. 8. Five pages of correspondence regarding the War Department Air Corps Material Division, August 9, 1933, June 27, 1929, December 4, 1928, and November 30, 1928. 9. Two pages of correspondence regarding Mr. E.M. Clark at Standard Oil of N.J., September 26, 1933.
Folder 03 - Business Correspondence 1938-1953

Folder 04 - Business Correspondence 1954-1960


Folder 05 - Business Correspondence 1961-1962

Folder 06 - 1961-1962 Notes & Correspondence on “History of A/C Piston Engine”


Folder 07 - Personal Correspondence

Physical Description: 1. Envelope with cursive, S.D. Heron, Personal and Confidential. 2. From: Irene Green (nee Harman), To: Sam, January 20, 1941. 3. From: Bessie Harman, To: Sam, date unknown, first page missing. 4. From: Betty Ryder, To: Sam, date unknown. 5. Envelope, Irene Harman, To: S. Heron. 6. From: unknown, To: Sam, February 8, 1941. 7. Envelope, Bessie Harman, To: S. Heron. 8. From: Bessie Harman, To: S. Heron, November 9, 1942. 9. Envelope for Ethyl Gasoline Corporation, Europe.
Folder 08 - Employment Records and Correspondence

Physical Description: 1. Discharge or Resignation from Mechanical Engineer Aircraft Power Plant, December 24, 1925. 2. Notice of Promotion from Mechanical Engineer Aircraft Power Plant to Principal Mechanical Engineer Aircraft Power Plant, October 28, 1929. 3. Three pages of correspondence from The Joint Chiefs of Staff, the Army-Navy Petroleum Board, and the Military Petroleum Advisory Board, Feb, March, 1948, January, 1952. 4. Three pages of correspondence regarding NACA, two pages regarding the NACA personal History Statement, and a list of names, December, 1953. 5. Letter from Mr. Donald A. Quarles, Assistant Secretary of Defense, three pages (including one very long page) of statement of personal history and employment. 6. Six pages of forms regarding the American Men of Science in cooperation with The National Research Council. 7. Three pages of correspondence associated with Mr. Donald A. Quarles, Assistant Secretary of Defense, February, March, 1955.

Folder 09 - Stellite alloy-related correspondence 1928-1933

Folder 10 - Drafts Written by Heron

Folder 11 - Newspaper and Magazine Articles

Folder 12 - Letters from E.T. Jones, Val Cronstedt, Manly Medal, and Engineering School and Lt. Frank Klein
Physical Description: 1. One envelope and four letters (one small letter) associated with E.T. Jones, September, 1929. 2. One envelope and Fourteen pages associated with Val Cronstedt, including correspondence, notes on Engineering Organization, and one picture, 1951. 3. Envelope and seven pages of correspondence regarding the Manly Medal, 1929. 4. Two pages regarding the scientific method of Knock Testing of Fuels. 5. One page containing an outline of an Engineering School Lecture on Fuels and Lubricants, January, 1936. 6. Envelope and eighteen pages documenting Fuels and Lubricants, associated with Lt. Frank Klein, and documentation associated with Engineering School in Wright Field.

Folder 13 - Correspondence with Edgar Graham 1928-1955
Box 02
Folder 14 - Wright Brothers Related Documents 1954

Folder 15 - Harvard Correspondence (Schlaifer)


Folder 16 - Correspondence with Maurice Olley 1953-1961

Folder 17 - $1.00 Contract for Three Thousand Booklets on “Aviation Fuels and Their Effects on Engine Performance.”

Physical Description: 1. From: R.F. Wadsworth, Department of the Navy Bureau of Aeronautics, To: Mr. Robert V. Kerley, Letter highlighting contract. 2. One dollar silver certificate in the same archival protecting sheet with item #1. 3. One telegram, three pages of correspondence regarding the Department of the Navy Bureau of Aeronautics, November, 1951.

Folder 18 - Blueprint-Advisory Committee for Aeronautics, and Engine Development Parts I & II


Folder 19 - Full Blueprints


Folder 20 - Naturalization Documents for U.S. Passport

Folder 21 - Miscellaneous Documents, Articles, & Correspondence

Folder 22 - Miscellaneous #2, Satire

Box 03
Folder 23 - Identification/Certification & Biographical Information

Folder 24 - Committee for Aeronautics Booklets 1918, 1919, 1923

Folder 25 - Engineering Booklets

Folder 26 - Other Aeronautical Booklets

Folder 27 - Film Script “We Saw it Happen”
Physical Description: 1. Film Script of “We Saw it Happen,” 50th anniversary of Wright Brothers Flight, produced for UAC. Contains over 90 pages, including two telegrams.

Folder 28 - Lawsuit
Physical Description: 1. Lawsuit including cover binding: M.J. Schenk and R. Picard v. United Aircraft Corporation, Civil Action No. 150, July 24, 1940.

Folder 29 - Negatives
Physical Description: 1. 18 Small negatives and 2 full-page negatives.
Folder 30 - Photographs


Folder 31 - Bio Files (pictures) 02-H-00232-00239, and negatives

Physical Description: 1. Portrait of S.D. Heron addressed to Bob Kerley. 2. Certificate of the Manly Memorial Medal awarded to S.D. Heron, 1928. 3. Two photographs on one paper of the back and front of the coin. 4. Portrait of S.D. Heron. 5. Portrait of S.D. Heron smoking a pipe. 6. Photograph of S.D. Heron lighting a pipe. 7. Photograph of S.D. Heron. 8. Photograph of the back and front of a coin imprinted with S.D. Heron. 9. Four small negatives.