

MS 4

DE BOTHEZAT, GEORGE
1882-1940

INVENTOR, HELICOPTER ENGINEER, SCIENTIST
Papers, 1911-1973

Linear ft.: .8
Approx. no. pgs.: 2,000

BIOGRAPHICAL SKETCH

George de Bothezat was born in Petrograd, Russia, Jun 1882, to Alexander and Nadine (Raboutowskaja) de Bothezat. He attended the Tech-nological Institute of Kharkow, Russia, 1902-1905. He graduated in 1907 with distinction from the Liege Electronic Institute of Belgium. De Bothezat returned to Kharkow for graduate work before enrolling in post-graduate training at first the University of Goettingen and then the University of Berlin. In 1911, he received a doctorate degree in science, Sc.D., having completed his dissertation, "Airplane Stability," the first mathematical investigation of that problem. From 1912-1917 he was a college professor of aviation engineering and related fields. De Bothezat came to the United States in May 1918 as a lecturer and scientist. He served as a scientific expert for the National Advisory Committee for Aeronautics, Washington, D.C., 1918-1921. From Jun 1921 to May 1923, De Bothezat was Acting Chief of the Special Research Section, Engineering Division, McCook Field, Dayton, Ohio. Under contract to the United States Government, he built the "De Bothezat Helicopter," one of the first helicopters in the history of aeronautics to actually perform sustained men-carrying flights. On 18 Dec 1922, the De Bothezat helicopter, built by the Engineering Division of the Air Service at McCook Field, was successfully test flown for 1 minute 42 seconds. On February 21, 1923, the De Bothezat helicopter achieved sustained altitude of 15 feet for 2 minutes and 45 seconds in flight tests at McCook Field. De Bothezat was assigned to the area of basic research to develop ideas and principles of aerodynamics for the Engineering Division, McCook Field, Dayton, Ohio, 1923-1925. In May 1925 he lectured at the University of Michigan. De Bothezat organized the De Bothezat Impeller Company, New York, New York, Jul 1925. For ten years he headed the firm which manufactured impeller-blowers and did aeronautical research. In 1936 he organized and headed the Helicopter Corporation of America which was engaged in the production of coaxial and other types of helicopters.

Associated with De Bothezat in the corporation to carry on the development of the rotary-wing aircraft for both civilian and national defense purposes were Watson Washburn, a New York attorney; Captain Boris Sergievsky, a Russian World War I ace; and Baron Vladimir Kuhn von Poushental, his personal assistant. Dr. De Bothezat died, 1 Feb 1940, in the New England Baptist Hospital, Boston, after an illness of several months.

SCOPE AND CONTENT NOTE

This collection was gathered and donated by Baron Vladimir Kuhn von Poushental and relates to the engineering, design and manufacture of the De Bothezat helicopter and the mathematical concepts from which the structures were built. The most significant part of the collection deals with the first sustained men-carrying helicopter. The flights were made possible by the engineering know-how of George de Bothezat and his staff who built the aircraft at McCook Field, Dayton, Ohio. The balance of the material contains information relative to the training received by De Bothezat and his contributions to science as a lecturer and scientist.

This collection consists of two boxes of manuscript materials, arranged in eight series: Series 1) Papers by De Bothezat, undated-1939; Series 2) Helicopter Corporation of America, undated, 1926, 1938; Series 3) Biographical, undated, 1939, 1972; Series 4) News-Clippings, 1923-1961; Series 5) Photographs, 1923-1939; Series 6) Printed Material, 1943-1969; Series 7) Technical Data, 1911-1930; Series 8) Baron Vladimir Kuhn von Poushental, 1949-1973.

SERIES ONE: PAPERS BY DE BOTHEZAT, UNDATED-1939, consists of one folder of fourteen papers authored by De Bothezat from about 1914 to 1939. These papers are concerned not only with concepts of physics but also with philosophic beliefs such as "causes and remedy for a depression" or "international mystification committed towards the person and authority." This series is calendared within the Arrangement and Description section of this manuscript record.

SERIES TWO: HELICOPTER CORPORATION OF AMERICA, UNDATED, 1926, 1938, consists of one folder which contains the history and purpose of the corporation.

SERIES THREE: BIOGRAPHICAL, UNDATED, 1939, 1972, consists of a single folder of information assembled by friends who worked with De Bothezat and personal statements relative to his training, education, family background, scientific contributions and positions held both in the United States and foreign countries.

SERIES FOUR: NEWS CLIPPINGS, 1923-1961, consists of one folder of newsprints about the scientific accomplishments of De Bothezat including his helicopters and their flights during 1921-1923. Also included are articles relative to the production of the De Bothezat helicopter.

SERIES FIVE: PHOTOGRAPHS, 1923-1939, consists of a collection of one folder of uncaptioned photographs of the helicopters that were fabricated at McCook Field, Dayton, Ohio, for the United States government by George de Bothezat. The photographs depict the structural design; pilot Maj. F.H. Bane, and spectators for the flights including Gen. "Billy" Mitchell.

SERIES SIX: PRINTED MATERIAL, 1943-1969, consists of one folder of periodicals and magazines in which appeared articles relative to De Bothezat's scientific contributions and his concepts concerning aero-dynamic principles and his ideas about the type and use of future aircraft.

SERIES SEVEN: TECHNICAL DATA, 1911-1930, consists of scientific research data written in Russian, and copies of two patents issued to De Bothezat for his ideas regarding his first helicopter.

SERIES EIGHT: BARON VLADIMIR KUHN VON PoushENTAL, 1949-1973, consists of correspondence to and from Poushental and news clippings relative to his assignment as special assistant to De Bothezat and to the Russian colony which was founded by Poushental for the purpose of giving Russian emigrants a community where their customs could be preserved.

ARRANGEMENT AND DESCRIPTION

SERIES ONE PAPERS BY DE BOTHEZAT, UNDATED-1939

BOX ONE

- Folder 1 Papers by de Bothezat, undated-1939.
- "The Einstein Theory of Relativity," reprinted from New World Monthly, Feb 1930.
- "The depression, its real causes and the remedy," Mar 1933.
- "Memorandum concerning helicopters," 7 Jun 1939.
- Introduction, "L'etude des lois de la resistance de l'aile," undated.
- "Concerning the international mystification committed towards the person and authority of Dr. George de Bothezat," undated.
- "General theory of the steady motion of an airplane," National Advisory Committee for Aeronautics, undated.
- "Development of the propeller since Ericsson's time," 9 Mar 1935.
- "Concerning the organization of the De Bothezat Industries Consolidated," undated
- "Fan engineering fundamentals," article 1, "Concerning engineering units."
- "Fan engineering fundamentals," article 2, "What is static pressure?" undated
- "Fan engineering fundamentals," article 3, "Dynamic significance of static pressure," undated.
- "Fan engineering fundamentals," article 4, "Laws of similitude for fans," undated.

"Fan engineering fundamentals," article 5, "Specific capacity and specific pressure," undated.

"Fan engineering fundamentals," article 6, "Critical discussion of fan testing," undated.

SERIES TWO

HELICOPIER CORPORATION OF AMERICA, UNDATED, 1926, 1938

BOX ONE

Folder 2 Helicopter Corporation of America, undated, 1926, 1938.

SERIES THREE

BIOGRAPHICAL, UNDATED, 1939, 1972

BOX ONE

Folder 3 Biographical, undated, 1939, 1972.

SERIES FOUR

NEWS CLIPPINGS, 1923-1961

BOX ONE

Folder 4 News clippings, 1923-1961.

SERIES FIVE

PHOTOGRAPHS, 1923-1939

BOX ONE

Folder 5 Photographs, 1923-1939.

SERIES SIX

PRINTED MATERIALS, 1943-1969

BOX TWO

Folder 1 Printed materials, 1943-1969.

SERIES SEVEN

TECHNICAL DATA, 1911-1930

BOX TWO

Folder 2 Technical data, 1911-1930.

SERIES EIGHT **BARON VLADIMIR KUHN VON POUSHENTAL, 1949-1973**

BOX TWO

Folder 3 Baron Vladimir Kuhn von Poushental, 1949-1973.