The Descriptive Finding Guide for the Maj. George E.A. Hallett Personal Papers
SDASM.SC.10062

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URL: http://www.sandiegoairandspace.org/
Abstract: This collection contains personal material relating to the career of Maj. George Hallett. Hallett was an engineer who worked with Glenn Curtis on early airplanes in San Diego. He was in the Army Air Service during World War I. After the war he worked in the General Motors Research Lab and later as a consultant for Consolidated Aircraft.

Biographical / Historical

George Eustace Amyot Hallett, an aviation pioneer, aircraft engine developer, and inventor, devoted the major part of his adult life to aviation. He was born in England on May 9, 1890. His parents came to America when he was six months old, locating in San Diego, California. After finishing school, he worked as an apprentice for the Baker Machine Company in San Diego, specializing in the maintenance and repair of boat and automobile engines, while also taking a home study course in engineering.

He became acquainted with two amateur San Diego aviation enthusiasts, Bernard F. Roehrig and Charles Walsh, who were experimenting with airplanes and teaching themselves to fly at Imperial Beach. The Roehrig machine had been built at Baker Machine Company, and Hallett began to help the two aviators make repairs and tune their engines. In 1910, Hallett made Glenn H. Curtiss' acquaintance when Curtiss began to adapt North Island for use as a training base. Curtiss had rented a boat from Baker Machine to transport men and equipment. Soon, Curtiss made arrangements to borrow Hallett, which proved to be the start of a long association.

Hallett was a member of the small Curtiss group who succeeded in making the first successful flights off the water in 1911. He was also involved in attaching a retractable wheel landing gear to their aircraft, which they called the Triad, the first successful amphibian. The same year Hallett accepted a position as the mechanic for Charles C. Witmer and the Curtiss flight exhibition team, later also serving over the next several years as the mechanic for other Curtiss team pilots. In 1914, Hallett received flight training, in anticipation of his role as the co-pilot of the flying boat America, planned for a trans-Atlantic flight attempt. The flight was abandoned due to the impending war in Europe.

Hallett returned to North Island in 1914, supporting the Curtiss Model N that was to enter the Army competition trials there. This airplane was later modified and became the well known Curtiss JN during and after World War I. Late that year he left Curtiss and accepted a government position as the Army's aviation mechanic at North Island, supervising engine overhaul and serving as a consultant on engine matters. He then developed a course of study for engine mechanics and developed a new method for investigating engine problems and failures. This led to his preparation of a book on the topic, which became a standard part of aviation ground school instruction.

In 1917, after the declaration of war, Hallett was called to Washington and placed in charge of organizing mechanic's schools for the Army Air Service at large. He also assisted colleges in adding his coursework, which, by then, had achieved national prominence. In 1918, he was commissioned a Major in the Army Air Service and was sent to Wright Field in Dayton, where he established the power plant and aeronautical repair departments. After the War, he was transferred to McCook Field, where he was placed in charge of the power plant branch. There, he established an engineering department and an engine test and development facility, which led to a number of innovations, particularly with engine superchargers.

In 1922, Hallett resigned from the Army to become a research engineer and section head of the General Motors Research Laboratory in Detroit. His work at General Motors included laying the foundation for their very successful diesel engine program. Of note, he was a prominent member of the group that arranged for the moving of the Wright residence and workshop from Dayton to Greenfield Village, to become a permanent part of the Ford Museum at Dearborn.

George Hallett retired from General Motors in 1937, moving first to Tucson, Arizona, where he lived for four years, following which he returned to the San Diego area, where he made his final home in La Mesa. During World War II, he served as a special consultant for Reuben H. Fleet and Consolidated Aircraft in San Diego. He continued to fly whenever possible, never lost his interest in things mechanical, and also enjoyed small cars and photography. Major Hallett served as Chairman of the Prudden Historical Library and Archives at what is now the San Diego Air & Space Museum, a position he held for a number of years, initially in 1963.

Conditions Governing Access

The collection is open to researchers by appointment.
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Immediate Source of Acquisition
The materials were donated to the San Diego Air & Space Museum circa 1970-1980.

Preferred Citation
[Item], George Hallett Special Collection, Archives, San Diego Air & Space Museum

Related Materials
Curtiss Aviation School Subject Files
https://www.flickr.com/photos/sdasmarchives/sets/72157629760583962

Scope and Contents
This collection contains correspondence, photographs, technical documents and other papers covering the career of Maj. George Hallett.

Subjects and Indexing Terms
North Island Naval Air Station
Liberty Engines
McCook Field (Ohio)
Wright-Patterson Air Force Base (Ohio)
General Motors Corporation -- Research
Aero Club of America
Bane, Thurman Harrison, Col.
Arnold, Henry Harley
Curtiss, Glenn Hammond
Early Bird Society
Martin, Glen L.
Consolidated Aircraft (Firm)
Heron, S.D. (Samuel Dalziel)
Kettering, Charles Franklin
General Electric Company
Hall-Scott Motor Car Co.
Mitchell, William, Gen.
Fleet, Reuben Hollis
Handley, Frederick Handley
Box 01 Correspondence and Official Papers

Box 02

Box 03

Physical Description:
Box 04

Physical Description: Invention Development Records, Patents, Engineering Sketches and Drawings 123. Invention Development Records These records deal with engine design improvements, inventions, or proposed inventions, for the most part dating from when Hallett was employed at the General Motors Research Laboratory. Engine design improvements include, but are not limited to: poppet type injection valve, spark plug cooling, carburetor heater valve, carburetor heating coil, rocker and bevel cone mechanism, engine injection valve, variable inlet and exhaust system, Packard valve gear, flared port holes in steel cylinder liners, light car engine with fluid fly wheel, connecting rod pin, crank shaft pin, valve gear lubrication, valve seat cooling, connecting rod bearings, two cycle engine exhaust heater, combustion chamber arrangement, intake/exhaust/air valve timing, copper lined cast iron guide, localized charge in two cycle engine, exhaust collector and air supply for single valve engines, fluid cooled cylinder with radiating fins, two cylinder engine connecting rods, fuel feed nozzles, and supercharged two cycle engine. 125. Patents (Not All Attributable to George Hallett) No. 981,216 (1911), Apparatus for Generating Steam or Other Vapors No. 981,217 (1911), Apparatus for Generating Steam or Other Vapors No. 981,218 (1911), Apparatus for Generating Steam No. 988,374 (1911), Internal Combustion Engine No. 1,008,188 (1911), Internal Combustion Engine No. 1,139,898 (1915), Internal Combustion Engine No. 1,319,789 (1919), Carburetor No. 1,339,218 (1920), Carburetor No. 1,359,828 (1920), Carburetor No. 1,496,673 (1924), Gas Mixers No. 1,755,989 (1930), Brake Control; Re-issue 18,997 (1933) No. 1,757,425 (1930), Hydraulic Valve Mechanism No. 1,819,715 (1931), Eccentric Balance Driving Gear No. 1,872,141 (1932), Hydraulic Valve Operating Mechanism No. 1,872,279 (1932), Lubricating System No. 1,874,446 (1932), Ported Cylinder Construction No. 1,897,934 (1933), Rear Wheel Arrangement for Motor Buses No. 1,898,459 (1933), Crank Shaft Balancing No. 1,898,460 (1933), Two-Cycle Engine No. 1,929,108 (1933), Oil Pressure Regulator No. 1,930,261 (1933), Slack Adjuster No. 1,930,553 (1933), Hydraulic Drive Gear No. 1,930,554 (1933), Hydraulic Valve Mechanism No. 1,931,476 (1933), Hydraulic Valve Lash Adjusting Mechanism No. 1,936,667 (1933), Hydraulic Valve Operating Mechanism No. 1,937,932 (1933), Rocker Arm Assembly No. 1,950,970 (1934), Two Cycle Engine No. 1,984,013 (1934), Two Stroke Cycle Engine No. 1,996,807 (1935), Valve Gear for Operating Dual Valves No. 1,997,279 (1935), Piston Driving Mechanism No. 2,001,858 (1935), Lubricating System with Initial Splash No. 2,014,932 (1935), Roots Blower No. 2,067,757 (1937), Engine Blower Control No. 2,067,984 (1937), Two-Cycle Engine Load Control No. 2,133,510 (1938), U-Type Two-Cycle Engine Engineering Drawings 126. Manly Hydraulic Drive (1923) 127. Frigidaire Division (Blueprint), No. EC-25114, Constant Compression Engine (1936) 128. Awards and Certificates 129. Diaries, Memoranda and Address Books 1911 1911-1912 1911-1913 1912-1914 1913 (2) 1914 (2) Curtiss Model E Hydro Notes

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