ENGINEERING RECORD

of

Sydney J. Waters
3637 Garrison Road
Toledo, Ohio

DATES	NAMES AND ADDRESSES of COMPANIES	TITLE or POSITION	SPECIFIC DETAILS as to NATURE of WORK
1900 to 1904	Masson & Scott, London transferred to Bryan Donkin & Clench Ltd. London & Chesterfield	Apprentice	Foundry, Pattern Shop Fitting, testing, drawing office.
1905	Sir Hiram Maxim Elect. & Engineering Co. London	Assistant Draftsman	Central Elect. Station layout & installation of plant.
1906	Messrs. Isler & Co., London	Engineering Assistant	Well boring & designing tools and pumps
1906-07	Messrs. D. Napier & Lou London	Draftsman	Designing Motors for Napier Cars.
1907-08	J. Tyler & Sons Ltd. London	Chief Draftsman	Designing & Supervising manufacture of all types gasoline engines
1909	J. Thornycroft Ltd. Basingstoke	Draftsman & testing	Diesel & Parafin engines
1910	Wolseley Tool & Motor, Co. Birmingham	Designer	Light aero. engines and machinery for dirigibles
1911	Daimler Motor Co., Coventry	Draftsman	Designer of special engines and gearing
1912 to 1915	Royal Aircraft Factory Farnborough, Hants.	Draftsman, Chief Draftsman, Asst. Designer	Designing air & water cooled motors, Metal airplanes and accessories
1916	" " "	Technical Supervision of Contracts	Supervised manufacture of aero engines at several government factories, authorized modifications, fixed prices & O.K. contracts.
1917	" " "	Efficiency Engineer	Investigating shop processes & evolving improved methods of manufacture

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1917 1918	British Air Ministry	Technical Officer	Assistant to Tech. Director, criticising design & manufactures of aero. engines & armaments.
1918 to 1922	" " "	Superintendent of drawing office	Experimentation & improvement to Rolls Royce, Siddeley, Wolseley, BR2 and other aero. engines & aircraft
1923 to 1925	Hawker Eng. Co., Ltd. Kingston on Thames	Chief Draftsman	Designing all metal aircraft (government fighters & bombers) also two stroke aero engine
1926 to 1928	Gloster Aircraft Co. Ltd., Cheltenham, Eng.	Assistant Chief Designer	Designing aircraft, special engines & variable pitch propellers.
1929	DeHavilland Aircraft Co. of Canada, Toronto	Technical Engineer	In charge of all technical work and testing of Gipsy & Cirrus aero engines
1930	Dawn Motors Ltd.	Engineer	Designing various types of engines (gasoline) for aircraft etc.
1932 1939	Douglas Aircraft of Santa Monica & El Segundo	Draftsman to Asst. Chief Designer	Design of airplane structures, landing gear, hydraulics cooling systems ventilating and other equipment.
1939 Sept. to Jan. 1942	Northrop Aircraft, Inc.	Research Project Engr.	Design & supervision of construction of new types of structures & devices.
1942 Feb. to April	Bureau of Aeronautics U.S. Navy, Wash. D. C.	P.5 Engineer	Preliminary design of airplanes
Apr 1942 to date	Willys-Overland Motors, Inc., Toledo, Ohio		Consultant & Councellor on airplane design and manufacture

Associate Fellow of the Royal Aeronautical Society of Great Britian.
Fellow Royal Society of Arts., London, England.
Member Junior Institution of Engineers, London, England.

Some of the Progressive Activities

made by

S. J. Waters

Invented and patented the first successful photographic stencil (1918). Sold all rights to the Gestetner Company. Patented all over the world, now used largely by the process and silk screen printers.

Invented the streamline wire (1913) displacing cables on airplanes.

Invented torsion bar suspension for vehicles, patented in six countries (1919).

Designed the first airplane bomb (600 lbs) in 1914.

Designed the first oleo landing gear in England (1912).

Patented a reversing gear for motor boats (1909).

Patented a reduction gear for airplane engines (1926).

Invented the internally sprung wheel for airplanes(Patented by Dowty).

Invented a water meter (Patented by J. Tylor & Sons, Eng.

Instigator of engine driven pump with hydraulic accumulator for airplanes while with the Douglas Company in 1933.

Invented the ratchet valve. Patented by Douglas.

Invented the dual fuselage airplane (1912), Lockheed P 38 and others. Obtained patent in England for same in 1914.

Invented the unitwin drive in 1912. (two independent engines drawing one propeller)

Invented, patented and built a perfectly balanced single cylinder engine.