

The Flying Pioneers

By HAROLD E. MOREHOUSE

JOSEPH L. CATO

Joseph L. Cato was born at North Yakima, Washington February 18, 1889. Later his parents moved to Vancouver, Washington where he attended private schools. The family then moved to Stockton, California where Cato continued his schooling. Being mechanically inclined, he started to work in a machine shop after school to help with his education.

Naturally interested in engineering and scientific subjects, Cato first became intrigued with aeronautics when he discovered some articles on gliders and gliding in Scientific American Magazine in the local library in 1903. Cato became so absorbed that he read everything he could find on the subject, including the gliding experiments of the Wright Brothers. This resulted in his building some model wing sections which he towed in the wind to determine the centers of lift and pressure. After making these experiments he started the design and construction of a 28 foot glider, with which he succeeded in making one good hop before a smashup ended the project. Later, Cato moved to San Francisco where he took a night school course in engineering.

In February 1908, Cato submitted plans and specifications for a powered aircraft to the War Department, Washington, D. C. where he understood bids were being received for the construction and delivery of a flying machine. He received the usual acknowledgment form from the Signal Corps. Cato continued his intensive study of aeronautics and between 1909 and 1915 built three Curtiss-type biplanes, one Bleriot-type monoplane and

also did considerable revamping of engines so they would run, as well as converting some automobile engines for use in his planes. Most of the plane building and experimenting during this interval was done as a spare time activity, devoting his evenings and weekends to this work while employed as a machinist and gas engine repairman.

After completing his first plane in 1909, Cato succeeded in making his first solo hop on October 15th that year. During this period Cato became acquainted with H. W. Blakley, who already knew how to fly, and he assisted Cato with his work and some flying instruction. At times Cato also did airframe and engine work for other local private plane builders to earn money for his own program. During 1912 and 1913, Cato and Blakley flew some exhibition engagements together at nearby points.

Blakley later left California to join Capt. T. S. Baldwin's team of exhibition aviators, then in 1915 went with the Sloane Aeroplane Company of Boundbrook, New Jersey. There, Blakley saw an opening for Cato and wired an offer to join them on experimental development work. Cato accepted and started in November 1915, remaining until April 1916 when both he and Blakley left to join the L. W. F. Engineering Company at College Point, Long Island, New York. Cato became Experimental Aeronautical Engineer and assistant to the General Manager. While there, and with his assistance, the L. W. F. planes went on to considerable renown. Their program on the Model V introduced several innovations at that time, the first full monocoque, moulded plywood fuselage, balanced controls, etc. with 135 hp Vee-Eight Thomas engine. Later this engine was replaced by a Liberty 6 which was flight-tested in January 1918. These planes had exceptionally good performance and many noteworthy flights were made with them.

In December 1918, Cato left L. W. F. to join the Marlin-Rockwell Corporation, New Haven, Connecticut where he was in charge of a program to design and build a small sport plane and engine for possible post-war production. The results of his efforts were a most interesting little plane and engine but these were not put into production. His engine was easily the forerunner of the light plane engine movement which was to follow in later years after a market developed. Announced in September 1919, this engine was a two-cylinder opposed conventional four-cycle air-cooled type, rated at 72 hp at 1825 RPM and weighed 134 pounds complete. It was an all ball-bearing engine, and he had incorporated a novel internal aircooling system in addition to the usual external finning of the cylinders. While at Marlin-Rockwell, Cato flew for his pilot license, No. 352, in the early spring of 1919. In June 1919, he returned to L. W. F. where he assisted in a re-design of the OWL mail plane and also designed and supervised the construction of a small sport monoplane for them, designated the BUTTERFLY, using the Cato light plane engine.

In May 1921, Cato became Project Engineer and assistant to Captain George E. A. Hallett, Chief of the Power Plant Branch, U. S. Army Air Service, McCook Field, Dayton, Ohio, assigned to a long-range radial air-cooled engine development program. While at the field, Cato also prepared several books recording the development histories of various World War I aircraft engines. He left McCook in December 1926 to become Chief Engineer and General Manager of G. Elias and Brothers, Inc., of Buffalo, New York, where he was assigned to a project of



Joseph L. Cato: Pioneer Plane Builder, Pilot, Aero Engineer.

designing a small light plane and 80 hp engine combination. Three different small planes were designed, built and flight tested, but the engine program did not materialize. Later he also had charge of some military projects for the company.

In May 1930, Cato left G. Elias to join the Emsco Aircraft Corporation of Downey, California as General Superintendent and Production Manager. There he supervised the re-design of three of their aircraft and put them through A.T.C. tests, only to be confronted with a company decision to suspend aircraft activities. Cato was retained, however, as Production Engineer and Assistant to the President, and also permitted to do some outside aircraft consulting. During this time, he also designed another light plane and engine on his own time. He then formed the Cato Aircraft and Engine Corporation, hoping to get into business for himself, but this did not materialize.

In 1941 Cato became Chief Aircraft Maintenance Inspector and General Superintendent of the aircraft shops at Castle Air Force Base, Merced, California. There he designed and supervised the construction of numerous special tools, jigs and fixtures, field and hangar equipment, for which he received several awards and commendations from the Air Force. Cato remained at Merced until he retired in May 1953. Joseph Cato passed away on February 28, 1965, of a heart attack, at the Turlock Community Hospital, Turlock, California, at age 77. He was survived by his wife and a son.

Early Bird and Flying Pioneer, Joseph L. Cato devoted a long and active life to aviation, more particularly to creative engineering and development, where he contributed much toward the early progress of American aviation history. He started as a youth when practically nothing of value was available to guide his course and certainly rightfully belongs to that exclusive group of early young experimenters who had enthusiasm for the mere possibility of flying, which led them to build what looked like an aeroplane and then tried to coax it to lift them into the air.

VERNE CARTER

Verne Carter was born in Wyandotte County, Ohio, March 3, 1893 and attended local schools. Following an extended interest in flying, he enrolled for a course at the Wright School, Simms Station, Dayton, Ohio for the early summer class of 1915. He went to Dayton in May and started training in June, along with J. A. McRae, Maurice Coombs, T. D. Pemberton and a Japanese student, Goroku Moro. Howard Rinehart was instructor of the class. Carter was the last of the class to start training, but being an apt pupil, was the first to complete the course. On July 30, 1915 he was granted pilot license No. 332, passing his tests at Simms Station on the Wright school machine.

After obtaining his license, Carter joined the Attica Aviation Company of Attica, Ohio as a company pilot. The firm had two planes and planned to do exhibition work. One was a high-wing monoplane with an unknown engine, the other was a Curtiss-copy biplane, less engine. All the equipment was old and in bad condition. Carter proceeded to fix the monoplane, then tried to hop it, but he soon found it lacked sufficient power to fly. Its engine was removed and a 4-cylinder Roberts engine installed, which still was not enough power. By this time the company had contracted for some exhibition engagements and insisted that Carter make a determined effort to make a flight. The control of this plane differed widely from the Wright system with which Carter was accustomed and the field was short in length, very narrow in width with telephone wires at one end and a fully grown corn field at the other. In addition, there was a nasty cross wind blowing that morning, but Carter was determined to get the plane in the air. After several attempts he succeeded in bouncing it off, but in



Verne Carter: Early Wright and Benoist Pilot.

trying to hold it in the air in a semi-stalled condition, one wing dropped and caught in the grass, careening the plane around and resulting in a bad smashup. Fortunately, he was not injured. After surveying the wreckage, it was decided to salvage the engine and install it in the Curtiss biplane. Carter also had trouble in attempting to fly this plane, and as a result decided to leave the company.

Carter's next interest in flying took him to Sandusky, Ohio to visit the Benoist Company in early 1917. The firm had moved there from St. Louis, Missouri the year before, and while there Tom Benoist offered Carter a deal to buy one-half interest in one of their flying boats to start a passenger-carrying and flying school business. After some consideration Carter accepted the offer and made arrangements to get the business started. The machine was a standard side-by-side flying boat with a Roberts 6-cylinder 100 hp engine. About a dozen students were soon enrolled, and Benoist employed an experienced pilot to fly the boat until Carter could get some practice on it. Immediately there was trouble with the engine overheating and burning out bearings, which greatly retarded their progress. They were unable to get the engine troubles corrected, and since it was more important to train paid students than to get in flying time, Carter never did learn to fly it. Still plagued with troubles, Carter later had an opportunity to sell his interest in the boat and he then bought a half interest in a newer, later model, but experienced the same troubles with the new one. During this time, he had become more attached to the Benoist Company as an employee which continued until Mr. Benoist's death on June 14, 1917. Following this tragedy, the company went out of business but Carter remained on for a time to assist Charles Benoist in settling the affairs of the business.

He then returned to his home in Tiffin, Ohio where he served 30 years as a member of the Tiffin Fire Department. In 1947 Carter had the urge to do more flying so purchased a Taylorcraft Coupe which he flew for pleasure for some time. Carter, who lived alone in retirement,

passed away at the Tiffin Mercy Hospital on May 11, 1964 of a stroke following a lingering illness. He was survived by two sons and nine grandchildren. His body was cremated and the ashes interred in St. Marys Cemetery in Tiffin beside his wife.

Early Bird and Flying Pioneer Verne Carter was one of those early aviation enthusiasts who helped to promote flying and the development of aviation. While he did not fly extensively, he nevertheless deserves full credit for becoming a licensed pilot during the days of stick-and-wire open aeroplanes. His name appears on the Wright Memorial at Dayton with the others whose names will forever be honored there.

WILLIAM C. BEERS

William C. Beers was born in New Haven, Connecticut on September 5, 1872. He attended local schools, had a tutor, then took an electrical engineering course. In 1895 he became a draftsman for the Black Manufacturing Company, Erie, Pennsylvania, manufacturers of Tribune bicycles. He advanced to salesman for the firm and traveled throughout the United States and Canada until 1898, then he became their representative in Europe until the end of 1899.

Beers subsequently joined the Winchester Repeating Arms Company as a sales representative and remained with them until 1903 when he became affiliated with the Tribune Trap and Target Company of Erie, Pennsylvania. There he served the company as Secretary-Treasurer and General Manager until 1906. He then entered the Yale School of Law and graduated with a PhB in 1909, after which he became a bond salesman for Halsey and Company in New York, remaining through 1910.

During the early years of 1900, Beers was an ardent motorist, and in 1909-1910 became interested in aviation. While in Europe during the summer of 1910 he made some flights as a passenger in both Howard-Wright and Bler-

iot planes which fired his ambition to learn to fly. In December 1910, Beers was one of the founder-members of The Aero Club of Connecticut. The club started with 32 members, including many prominent business men throughout the state. Officers were A. H. Forbes of Fairfield, President; William C. Beers of New Haven; Alton Farrell of Ansonia and Clarence Whitney of Hartford, Vice Presidents; G. S. Bryan of Bridgeport, Secretary and A. H. Day of New Haven, Treasurer.

In February 1911, Beers became the first person in New Haven to purchase an aeroplane for his own use when he ordered a Wright Model B to be delivered about May 1.

At that time he was looking for a suitable field where it could be used, and he also wanted to build a hangar. The new Aero Club held their first annual banquet at the Stratford Hotel in Bridgeport on April 20, 1911 and about 60 attended the gala affair.

In June, Beers founded the United States Aeronautic Company of New Haven, Connecticut to build planes. Incorporators were William C. Beers, John W. Green and Harrison Sheldon. When the Wright Company established an eastern flying school at Nassau Boulevard, Long Island, New York in June, Beers was a member of the first class of students and was taught to fly by instructor A. L. Welsh. In the same class were Edson Gallaudet, George Beatty and W. Redmund Cross.

His own Wright plane was delivered at Nassau during this period and Beers was flying alone early in July. He continued his practice and on August 4 obtained his Pilot License No. 40 at Nassau flying a Wright. Just before the Chicago Meet in August Beers reportedly sold his plane to the well-known British airman, Tom Sopwith, who altered the controls to Farman-type for his use. It is believed Sopwith later installed a 50 hp Gnome rotary engine in this plane, which he flew in the Nassau Meet that fall.

Beers continued to do some additional flying at Nassau for the remainder of the 1911 season, and in October he arranged for A. L. Welsh to bring a Wright plane to Bridgeport where it was at the disposal of the Aero Club of Connecticut members. While there Welsh and Beers gave rides to members and guests, thus making the club one of the first in the country to arrange for flights to familiarize the group with aviation by actual experience. That fall Beers was also given the first flying license granted by the State of Connecticut. Evidently Beers gave up flying at the end of 1911 for there is no recorded evidence of any activity in 1912, and apparently nothing came of his firm to manufacture planes.

Following this Beers became Western Pennsylvania representative of the Massachusetts Mutual Life Insurance Company at Erie, Pennsylvania until 1916 when he returned to Connecticut to engage in the investment securities business in Danbury and New Haven. There he also represented several New York firms as broker. In 1928 it was necessary that he retire due to ill health. Following an extended illness he passed away at White Plains, New York, on August 27, 1930 at age 58. He was survived by his wife, a son and three brothers. Burial was in Wooster Cemetery, Danbury, Connecticut.

Flying Pioneer William C. Beers was one of the first wealthy sportsmen to take up flying purely for pleasure. While his flying was limited, it must be recorded that he purchased one of the first Wright planes, learned to fly, obtained a pilot license and helped promote interest and acceptance of flying during the early period when aviation was just beginning to receive public attention.

EDITOR'S NOTE: The appearance of this segment of "The Flying Pioneers" along with the one in the Spring 1967 issue, marks the ninth consecutive year that the JOURNAL has had the privilege of recording the work and accomplishments of the early aviators, through the tireless efforts of Harold Morehouse of 936 Fullerton Ave, Williamsport, Pa. 17705. For all of us, I would like to say to Harold and his wife, Marvel, "Many, many thanks and, please, keep them coming."



William C. Beers: Early Pilot and Aviation Supporter.