Yuba City Native John J. Montgomery, First American To Fly A Plane, Is ‘Father of Basic Flying’

How Sutter County Genius Shaped The World

WORLD’S LARGEST HEAVY EQUIPMENT MANUFACTURER SPRANG FROM EXPERIMENTS ON A SUTTER COUNTY FARM
On August 28, 1883, at Otay Mesa near San Diego, California, a manned glider left the surface of the Earth and soared in a stable, controlled flight. At the controls was John Joseph Montgomery, age 25, who had designed and built the fragile craft. After the launching, John and his brother James, who had helped launch the glider, paced off the distance of the flight as 600 feet. The 1883 flight of Montgomery’s glider was the first manned, controlled flight of a heavier-than-air machine in history, according to the American Institute of Aeronautics and Astronautics.

This flight occurred 20 years before Orville and Wilbur Wright’s first successful flight in a motorized airplane using a similarly designed wing structure.

The son of former Sutter County District Attorney Zachariah Taylor, who went on to become Assistant Attorney General of the United States, John J. Montgomery was born in a house on B Street in Yuba City in 1858. His mother, Ellen Evoy Montgomery, said that as a toddler, John used to lie on a pillow on his back and watch the clouds and the birds of the Pacific Flyway and “pretend to fly.”

In his biography of John J. Montgomery, “The Father of Basic Flying,” Arthur D. Spearman recounted how Montgomery’s early fascination with birds and human flight led to a lifelong experimentation with aircraft design, that first historic flight in 1883, and to recognition by most historians of aviation pioneers that much of what came later in aircraft design was based on his early work. His pursuit of flight also led to his death.

Montgomery began his primary education at Notre Dame Academy in Marysville, finishing his secondary education at St. Joseph’s Academy in Oakland. He attended Santa Clara College for a year before transferring to St. Ignatius College in San Francisco, where he received a B.S. degree in 1879 and an M.S. degree in 1880.

In 1882 he joined his family at their farm near Fruitland in San Diego County, where he soon preempted space in the barn for a laboratory. The following year marked a milestone in aviation history - John Montgomery made man’s first controlled flight in a heavier-than-air craft.

Over the next 10 years, John Montgomery continued to study the lift effects of various airfoil designs. In 1894, his design and experimental results were published in summary form in Octave Chanute’s “Progress in Flying”. The Wright Brothers read this book.

On April 29, 1905, in the presence of thousands of spectators at Santa Clara College where Montgomery was a professor, one of his gliders, named for the College, and manned by Daniel Maloney was raised by a captive balloon to an elevation of about 4000 feet. There it was released to be skillfully maneuvered during its eight minute descent to earth, and landed without injury at a pre-selected location about three-fourths of a mile from the launching site. Other successful glides followed. At the start of another demonstration on July 18 of that year, the glider, unknown to Maloney, was damaged as it was lifted from the ground. When he separated from the balloon at high altitude, further breakage occurred and Maloney died in the fall.

Pictures: Montgomery lands his glider in one of his later flights in the early 20th century (above). Montgomery, a professor at Santa Clara College, before it became a university, in front of one of his gliders. An artist’s rendition of a Montgomery glider being released by a balloon, a method used to deliver dangerous bombs by Montgomery and others for use in World War I and World War II.

“ALL SUBSEQUENT ATTEMPTS IN AVIATION MUST BEGIN WITH THE MONTGOMERY MACHINE.”

--Alexander Graham Bell

John Montgomery continued to focus on the stability and control of aircraft using unpowered configurations. He was the first person to use the term “aeroplane” and wrote a booklet with that title. He was granted the first “aeroplane” patent in 1906.

In 1910, John Montgomery entered into an agreement with Victor Loughead (later Lockheed) to build a powered aircraft. John Montgomery was to provide the airframe and Loughead the engine. They agreed that John Montgomery would perfect the airframe by building a highwing monoplane with landing gear, a modern-looking yoke control stick, and a bucket-type seat.

John Montgomery died on 17 October 1911, after this aircraft crashed on its maiden flight due to a sudden pitchup. His last words were, “How is the machine?”
Caterpillar Inc. is the largest earth-moving and farm implement manufacturing company on the planet. It's roots are traced to the fertile lands of Sutter County where, beginning in the 1870s, Daniel Best's inventions were tested on his brother Henry's wheat farm.

Over a period of 43 years, Daniel Best received 41 patents, ranging from an improved washing machine to combine harvesters, including those powered by both steam and gas. His inventions drove down the time and cost of irrigating, planting and harvesting crops, and his rivalry with another manufacturer, Holt Company of Stockton, ultimately bloomed into a merger that created Caterpillar Inc., a company whose earth-moving machines have been vital to the development of transportation corridors, water development projects, flood control and the building of communities for nearly a century.

Caterpillar makes the kind of heavy machinery used to move dirt to build dams, levees, and roads, and the development of such equipment dramatically changed the world's landscape. And it continues to make the farm crawlers that transformed California into an agricultural empire.

Daniel Best was born in Ohio in 1838, and came West in 1859, itching for some of the opportunities his brothers frequently wrote home about. In Walla Walla, Washington, where he built a sawmill, an accident took the first three fingers of his left hand. He then moved to Sutter County to work with his brother Henry. On his ranch some eight miles southwest of Yuba City, near what is now the intersection of Township and Oswald roads and in the vicinity of what is today called Best Road.

It was in Sutter County that Daniel Best learned his true calling as an inventor.

After discovering that his brother had to haul his wheat crop into Marysville to be cleaned and separated at a cost of $3 per ton before it could be sold, he developed a portable grain cleaner that could be brought to the grain. This invention, patented in April of 1871, won first prize at the California State Fair. The Best brothers cleared not only their own wheat, but made additional money taking the portable cleaner to several other farms in Sutter County.

When Oregon implemented the same law as California—requiring wheat to be cleaned before it is sold—Daniel's wheat cleaner patent provided him with tremendous capital to pursue other ventures. In 1888, he succeeded in combining a grain harvester, thresher and cleaner into one machine, a horse-powered model whose sale provided him with even greater capital for his next major invention.

In 1888, he purchased the rights to build a successful steam traction engine from Marquis De Lafayette Remington of Oregon, and the improvements he made to the original design earned Best engines a reputation as the strongest, most dependable and longest-lasting engines in North America.

About 1891, Daniel Best developed a gas engine to replace the steam engine, and proved its strength by staging a tug-of-war between his gas-engine tractor and his steam-engine tractor. At this time, Daniel Best was selling some $400,000 worth of machines a year, and his customers were in many countries, including Russia.

Daniel Best retired in 1908. His son, Clarence Leo Best, until then best known as a pianist, continued where his father left off. Clarence Best developed a tractor that moved on rolling tracks instead of wheels, launching a line of tractors still used today. At about the same time, Holt was developing tractors that moved on tracks and Holt unsuccessfully sued C.L. Best for patent infringement.

In 1925, the C.L. Best Tractor Company and the Holt Manufacturing Company ended their competition and merged to become the Caterpillar Tractor Company. The track design of much of the heavy equipment, in trademark yellow, is today seen throughout the world.

Caterpillar went through many changes, including the adoption of the diesel engine. During World War II, Caterpillar products found fame with the Seabees, Construction Battalions of the United States Navy, who built airfields and other facilities in the Pacific Theater of Operations. During the post-war construction boom, the company grew at a rapid pace and launched its first venture outside the U.S. in 1950, marking the beginning of Caterpillar’s development into a multinational corporation.

In 2007, Caterpillar reported $45 billion in revenue. Pretty heady stuff for an enterprise whose family tree was planted on Sutter County farmland. In 2007, Caterpillar reported $45 billion in revenue. Pretty heady stuff for an enterprise whose family tree was planted on Sutter County farmland.