



OTTO LILIENTHAL

All over Europe, in the late 1800s, adventurous minds were grappling with the problem of how to make effective, controlled flights.

This frantic search for answers influenced a young German engineer named Otto Lilienthal. The prospect of flight had fascinated Otto since his school days.

He had observed birds in flight, and correctly deduced that the curvature of a bird's wing held the secret to its lifting properties. He constructed gliders with wings shaped like those of a bird, and used ribs to create and maintain the curved wing profiles.

He engineered strong but light structures of bamboo and willow for the ribs, and stretched cotton fabric tightly across this frame for the wings. A fixed vertical and horizontal tail unit was mounted on a short bamboo extension at the rear.

Starting in 1891, he made over 2,000 successful flights in a number of esthetically beautiful gliders, some of which were biplanes. However, his reliance on body weight control methods was to be his undoing. On a glider flight in 1896, while soaring in one of his inventions, a gust of wind lifted the nose of the craft. The glider stalled and Lilienthal was unable to right it. He crashed so heavily that the specially designed bamboo fender built to protect him was unable to absorb the shock. Tragically, Otto died soon afterward.