As a teenager, Thomas Baldwin joined a traveling circus as a balloon acrobat. He made his first balloon ascent in 1875. After several years he began to search for something new and focused on the rigid parachute invented a century earlier. He invented a flexible parachute that could be packed and used it to jump from a balloons.

At the turn of the century Baldwin was intrigued by the light weight gasoline engine, and the possibilities it offered for controlling the flight of balloons. By 1904 he had adapted such an engine to his tube-shaped airship. On August 3, 1904 he flew his first dirigible, the "California Arrow" in a 360° flight returning to his starting point, the first such flight in the United States.
The U.S. Army was impressed by the airships and their military applications and ordered a 20,000 cu.ft. non-rigid airship for the Signal Corps (the U.S.Signal Corps Dirigible SC-1, completed in 1908). The U. S. Government appointed Thomas Baldwin as superintendent for the construction of all spherical, dirigible and kite balloons.

The SC-1 was 96 ft. long and 19½ ft. in diameter In total it weighed 1,2360 pounds, including 500 pounds for pilot and payload. The cigar shaped envelope was made of rubberized fabric surrounded by netting. A long rectangular girder was attached to the netting with steel cables. A 20 hp. Curtiss engine was attached to the girder and powered a propeller. The airship travelled at 20 mph. A trimming and stabilizing plane was mounted at the front of the girder and at the back end there a cruciform tail provided vertical and horizontal control.

Starting in late 1909 Baldwin turned his attention to the airplane which was garnering greater interest in the world.
In 1914, just before the United States entered the First Great War, Baldwin once again turned to airships as the Navy decided also to acquire its first airship. The DN-1 was built to the design of Baldwin by the Connecticut Aircraft Corp. However, it did not perform as expected and flew only for 9 days.

The DN-1

He ended his career working for the Goodyear Tire and Rubber Company of Akron, Ohio, where he designed and oversaw the construction of airships. He passed away in 1923.