

Adopted: April 5, 1944
File No. 3501-43

REPORT OF THE CIVIL AERONAUTICS BOARD
or the
Investigation of an Accident Involving Aircraft
During a Test Flight

Maurice Courtland Fry was fatally injured in an accident which occurred approximately $1\frac{1}{2}$ miles southwest of Middletown Airport, Middletown, Ohio, about 4:00 p.m. on June 11, 1943. Fry held a commercial pilot certificate with a single-engine land, 0-330 h.p. rating. He had accumulated approximately 2850 solo hours, about 2000 of which were in the type of airplane involved. The aircraft, an Aeronca, AF-43-26840, owned by the Aeronca Aircraft Corporation, was destroyed by impact and fire.

Fry, a test pilot for the Aeronca Aircraft Corporation, took off from the Middletown Airport at approximately 3:55 p.m. on the original test flight of the subject aircraft. Airport personnel watched the take-off and the plane appeared to climb in a normal attitude but was not observed from the airport thereafter. A few minutes later the airplane was seen in a left turn, at an altitude of about 150 feet, during which it dived toward the ground and disappeared from view of the witness. Another witness, living on a hill approximately 100 feet above and 600 feet from the scene of the crash, stated that he saw the plane pass over his house about 40 feet above the roof and continue in a glide without power toward the airport $1\frac{1}{2}$ miles away. As he turned to enter his house he heard but did not see the accident occur. Evidence indicated that the plane crashed at a steep angle on the left wing and nose, turned over and came to rest in an inverted position. While an attempt was being made to extricate the pilot, fire, from an undetermined source, broke out in the vicinity of the engine compartment and consumed the aircraft.

An examination of the wreckage revealed that the upper outboard end connection of the rear lift strut on the left wing was improperly assembled. Apparently, the adjusting insert sleeve of the terminal had not been inserted far enough into the strut proper and as a result the securing bolt, although inserted through the strut proper and safetica, did not pass through and secure the sleeve. Thus, the sleeve was left disconnected from the strut and in this condition the strut was not able to function as a support for the wing. This allowed undue warping of the wing panel, changing the flight characteristics of the plane to such an extent that it apparently became difficult if not impossible to control.

Prior to this accident the factory procedure required checking the final assembly by a company inspector. Apparently this inspector did not detect the improper assembly during the final check and the test pilot failed to see it when he made his pre-flight check of the rigging. Following this accident corrective measures were taken to facilitate inspection of the strut attachment upon final assembly and a procedure was established to have all newly-constructed aircraft pre-flight inspected by proper personnel before they are turned over to the test pilot.

The probable cause of this accident was loss of control of the aircraft following severe warping of the left wing in flight, due to improper factory assembly.

BY THE BOARD

/s/ Fred A. Toomes
Secretary