stable through all its three axes, in a stall there is not the slightest tendency to fall off into a spin, the nose drops and as the ship gains flying speed it comes up again finally assuming its normal gliding attitude in which it can be flown hands off. Very little rudder is required in turns, which is used only to overcome the initial adverse yaw effect of the down aileron. On several occasions the Cadet was landed hands off. In general, performance of the glider is slightly under that of the Franklin. Best gliding angle is a little over 14 at 31 m.p.h. and the sinking speed is around 4 ft./sec. at the same speed. Stalling speed is 25 m.p.h. These figures may not be correct as they are observations made during flights. I personally have flown the ship as slowly as 25 m.p.h. and although the controls were on the sloppy side, the ship was not in a stall, which is usually recognized on the Cadet by the distinctive rumble of the tail.

From May 6th to December 5th, 1943, 182 flights were made in the glider, by myself, Emil Lehecka, Ted Pfeiffer, Steve and Ginny Bennis. These included a flight by Steve of 1 hr. 45 min. duration and 3,000 ft. altitude, as well as by several others of close to an hour. In August, 1943, the glider received its NC license and the final Air Worthiness Certificate was issued in November of the same year. In the meantime Cadet Aeronautics, Inc., was organized with Ed Miller as president which among other things will manufacture and sell kits of the Cadet UT-1.

The Cadet is of all wood construction with the exception of struts, metal fittings and control system. The fuselage is covered with plywood from nose to the rear main wing bulkhead and with fabric from then on to the last fuselage bay, which has plywood skin covering. The cockpit is very comfortable with plenty of room for a long legged pilot with excellent visibility forward and downward, permitting one to see the winch even when the ship is almost over it. The wings are of conventional construction with two box spars and wood diagonal bracing; the leading edge is covered with 5/64" plywood, laminated wing tips are strong enough to obviate the use of tip skids. For stability purposes 6 degrees washout is built in to the trailing edge of the ailerons.

Rudder and elevators are of wood, fabric covered.

One of the interesting features of the Cadet are the wing pins of which there are only two each 4 ft. long, one pin fastens both front and rear wing fitting to the fuselage, a great saving in assembly time. Aileron controls are connected to the stick with cables, this feature may be improved in later models by using bell., crank and push-pull rod, although the present system is not bad, and ailerons can be connected to the stick in a very short time. At the present time the Cadet is classified in Group III, which means no airplane tow and visual contact daylight flying only, as the main purpose of the ship is construction and flying in schools, we have not made any steps to raise its classification.

SPECIFICATIONS CADET UT-1

Span—38 ft. 4¾".
Length—20 ft. 10¾".
Wing area——172.5 sq. ft.
Aspect ratio—8.5.
Weight empty—276 lbs.
Gross weight—450 lbs.
Wing loading—2.6 lbs./sq. ft.
Airfoil: Goettingen 426.
Angle of incidence: 4 degrees.
Washout: 6 degrees.
Best cruising speed—30 m.p.h.
Stalling speed—25 m.p.h.
Gliding angle—14.7:1.
Sinking speed—4 ft./sec.
Air speed limits, glide or dive—65 m.p.h.
Auto or winch tow—45 m.p.h.

(Continued on Back Cover)

The Cadet is a trim, stable and sturdy glider.

Cadet on its first flight, pilot, Emil Lehecka.