

The new M.L. from two aspects. Note the improved appearance in comparison with the first prototype (below).

## M.L. Mk 1

"Rubber Wing" Utility  
Aircraft in New Form

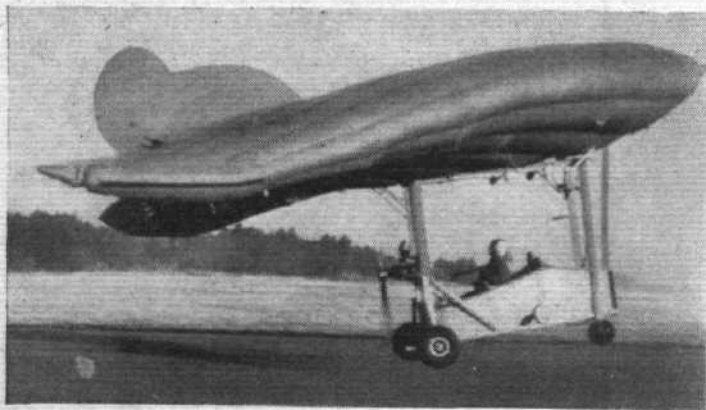
IT is now possible to publish photographs of the newest version of the highly unorthodox M.L. light aircraft, designed and made by M.L. Aviation Co., Ltd., of White Waltham, Berks. As will be seen, it differs considerably in appearance from the prototype of a year ago; certainly it no longer merits the disrespectful nickname "The Mattress."

The inflatable rubberized-fabric wing, of delta plan-form, has been very considerably cleaned up, and no longer presents the quilted appearance of the original. The basic structural method is, however, retained, the upper and lower surfaces being connected by a number of porous fabric diaphragms running spanwise and maintaining a symmetrical aerofoil profile developed from N.A.C.A. 0024. After initial inflation on the ground, the wing is maintained at its correct internal pressure—which is under 1 lb/sq in—by an electrically driven pump (this was previously windmill-operated) and a relief valve.

Control is by inflated elevons (combined ailerons and elevators) over almost the full span of the trailing edge; they are operated by cable from an inverted control column mounted on the fuselage superstructure. Vertical stabilizing surfaces are now fitted near the wing-tips; the central fin has been dispensed with.

The whole wing can be deflated and packed in a bag which, with the tiny fuselage, takes up very little space. The makers remark that it could be kept in the average domestic garage and should therefore appeal strongly to the private owner.

The wing is secured to the superstructure of the nacelle-type fuselage—or *vice versa*—by a series of toggles, and flying wires lead from patches on the wing under-surface to points on the fuselage and undercarriage members.

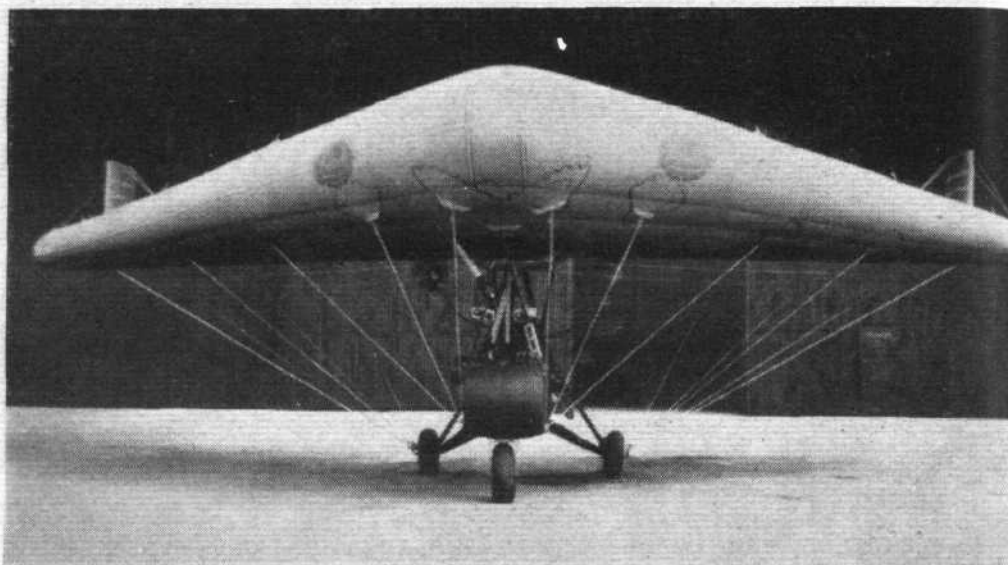


The prototype of a year ago.

It will be seen that the fuselage has now been completely redesigned, the box-like affair previously employed having given place to a much slimmer, longer structure with tandem seating for pilot (in front) and a passenger. The tricycle undercarriage, with swivelling nosewheel, now has its rear wheels mounted on legs instead of on a horizontal axle.

Whereas the prototype's pusher engine—a 65 h.p. McCulloch intended for pilotless aircraft—was mounted on a pylon, the power unit of the new Mk 1 machine is a Walter Mikron III in a cowling faired into the rear of the fuselage. Cruising speed has been increased from about 45 m.p.h. to 58 m.p.h.

A simple but presumably quite sufficient range of instruments



is fitted: A.S.I., altimeter, engine r.p.m., oil pressure, wing pressure and compass.

The M.L. is the subject of a Ministry of Supply contract. When this was placed, the M.o.S. stated that it was "for the construction of a light, easy-to-produce and easy-to-pilot communications aircraft" for which both military and civil applications were foreseen.

### M.L. LIGHT AIRCRAFT Mk 1 (Walter Mikron III)

Maximum speed (on 50 h.p.)	68 m.p.h.
Cruising speed (on 35 h.p.)	58 m.p.h.
Stalling speed	30 m.p.h.
Climb (sea level)	740ft/min
Take-off run	70 yd
Distance to clear 50ft	140 yd
Endurance (at cruising speed)	2½ hr
Ceiling	5,000ft
Dry weight	450 lb
Fuel (methanol/benzole/petrol)	85 lb
Pilot	180 lb
Passenger	180 lb
Baggage	40 lb
Total weight	935 lb
Span	35ft 0in
Root chord	17ft 6in
Tip chord	5ft 9in
Overall length	23ft 3in
Wing area	400 sq ft
Overall height	10ft 6in
Wheelbase	7ft 1in
Track	5ft 4in

### "FLIGHT" PHOTOGRAPHS

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