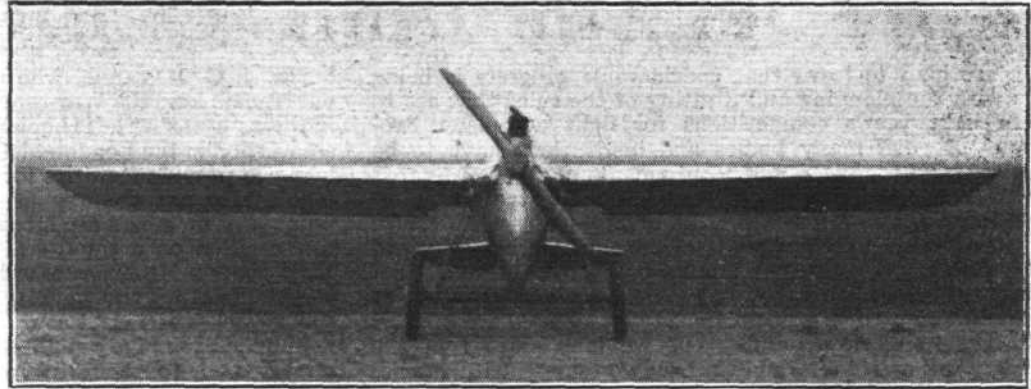


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 ○ The Carley light  
 ○ mon o p l a n e :  
 ○ Front view. Note  
 ○ triangular - sec-  
 ○ tion fuselage.  
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From the photographs will be seen that the Carley light plane is a cantilever monoplane of very clean lines, the thick tapering wing being placed on the fuselage. The machine is painted in Mr. Carley's favourite colours—i.e., a red fuselage and yellow wing and tail planes.

The fuselage is a wooden structure of triangular section. It consists of three longerons of plain solid section, and of a number of bulkheads glued together and covered with three-ply. There are no metal fittings or wires in the whole fuselage.

The wing is a tapering cantilever of very deep section. It is entirely constructed of wood. The ribs consist of a thin three-ply web, with strips glued and nailed to the sides acting as flanges. There are two box spars. The wing is covered up to the front spar with three-ply, aft of the front spar to the trailing edge with fabric. There are no bracing wires. Ailerons of ample proportion are fitted, and each aileron is connected with the wing by three hinges. These hinges are of very simple construction, as shown in one of our sketches. In the thick centre of the wing is a circular cut-out portion, which forms a part of the pilot's cockpit. As the fuselage is triangular, the pilot's seat is rather high, and thus a very good view is obtained. The controls are of the usual type: joystick and rudder bar. One of the sketches shows how the rudder bar is supported. The tail planes are of standard type, of cheap, simple, but strong construction. The horizontal tail plane is fitted to the fuselage by a U-bolt on each side.

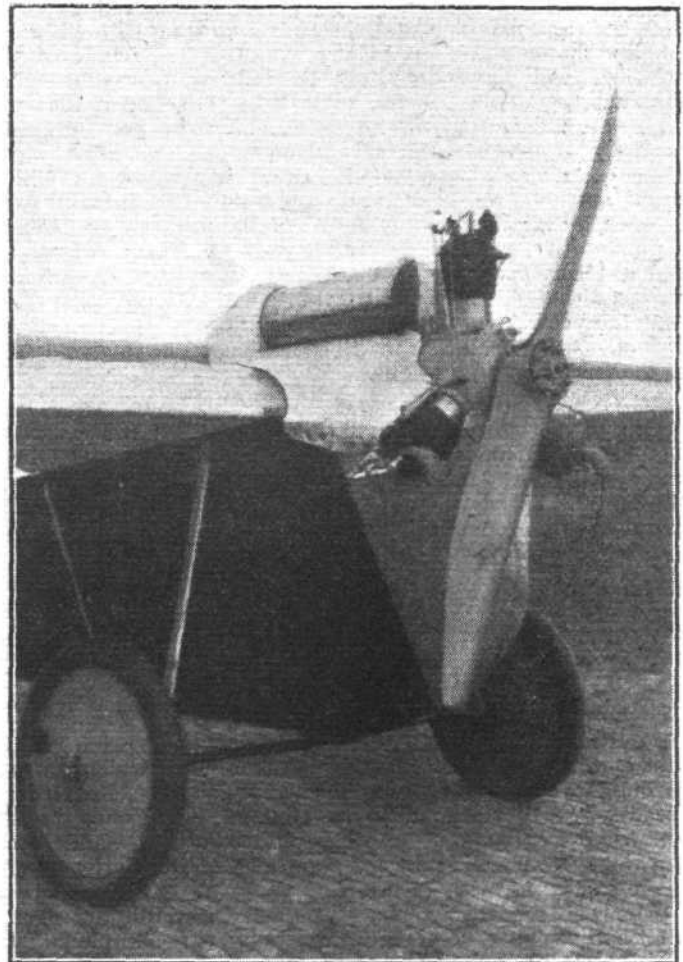
The elevator is in one piece. The cables operating the elevator are carried over pieces of aluminium in order to prevent damage to the fabric.

The undercarriage is of the divided type, and hinged to the fuselage where the lower longeron forms the keel. The axle is provided with a wooden streamline fairing, and rests in a cut-out of the V of streamlined steel tubes which runs from the upper longeron to the end of the axle, which is sprung by rubber cords. The ends of the V are fitted to the fuselage by a triangular steel box, where a bolt goes through the eye in the streamline tube. To the same box is fitted a U-bolt which connects the wing to the fuselage, as may be seen in the illustration.

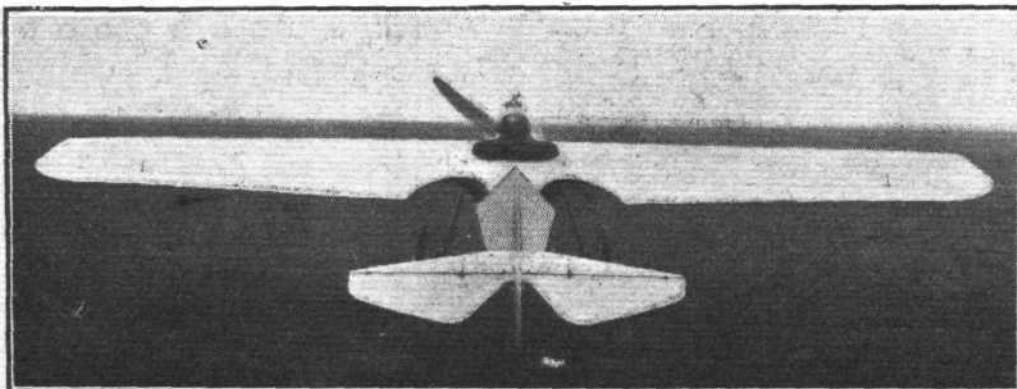
The tail-skid is fitted to the rudder, in order to facilitate steering when taxiing over the ground. It is made of a steel spring, one end being wound over a piece of steel tube and then bent straight, the other end being wound right down. There the ends meet and are welded to a steel plate.

The Anzani engine is mounted on a steel ring, and drives a

Pierre Levasseur propeller of 1.70 m. (5 ft. 7 ins.) diameter. Direct aft of the engine is fitted the petrol tank, with a capacity of 3½ hours. The feed of the carburettor is by gravity. A windscreen is in front of the cockpit.



THE CARLEY LIGHT MONOPLANE: View of undercarriage, engine mounting, etc.



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 ○ The Carley light  
 ○ mon o p l a n e :  
 ○ Rear view. Note  
 ○ cut-outs in trail-  
 ○ ing edge.  
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