

**THE NIEUPORT-DELAGE 37 C-1 :** Note the position of the pilot in front of the wing. The auxiliary plane is fitted chiefly to shift the centre of pressure forward.

Of really new type, is the Nieuport 37 C-1, with 300 h.p. Hispano engine. This machine is a "sesquiplan," with thick monoplane wing and a smaller plane enclosing the axle, cross struts and a portion of the wheels. The 37 C-1 is intended for work at great altitudes, and consequently is fitted with a Rateau supercharger. As exhibited, the engine was fitted with an ordinary propeller, but it is understood that later, one of the Levasseur variable pitch airscrews will be fitted so as to draw full advantage of the supercharger.

As regards fuselage construction, this machine follows usual Nieuport-Delage practice, the body being a monocoque shell, built up of strips of tulip wood wound round a mould spirally and glued up, the whole being afterwards covered with fabric. This construction has long been in favour by this firm, and certainly it appears to stand up well to hard wear, while rendering possible the excellent streamline shape for which Nieuport machines are famous. The engine is placed very low in the body, the axis of the propeller being considerably below that of the fuselage. The result is that the pilot is placed above the engine, which arrangement, in conjunction with the monoplane wing, should give a good view in all directions.

The monoplane wing is built up on four main spars, and is braced by a single V-strut on each side. The covering is in the form of three-ply wood, and there is, consequently, no internal drag bracing, this function being performed by the ply-wood covering. Strong box ribs are placed at the point in the wing where attach the two bracing tube struts,

the actual fittings for the struts occurring between the spars. As the pilot's seat is in front of the wing, and with a section which probably has its centre of pressure fairly far back, it might be imagined that the machine would have a tendency to be nose heavy. The wing has been placed as far forward as possible, the leading edge in the centre having been swept back to accommodate the cockpit.

In order that the machine shall not be unduly nose heavy, the fairing surrounding the wheel axle, the cross struts and part of the wheels has been made of lifting section, and is of fairly large area. It is supported on the splayed-out lower portion of the chassis struts, and the wheels are housed in slots cut out of the trailing edge. An aluminium mud guard covers the front portion of the wheels. The arrangement is certainly ingenious, and if the machine trims properly (as possibly it may owing to the downwash on the tail from a high-lift main plane) the view should be uncommonly good.

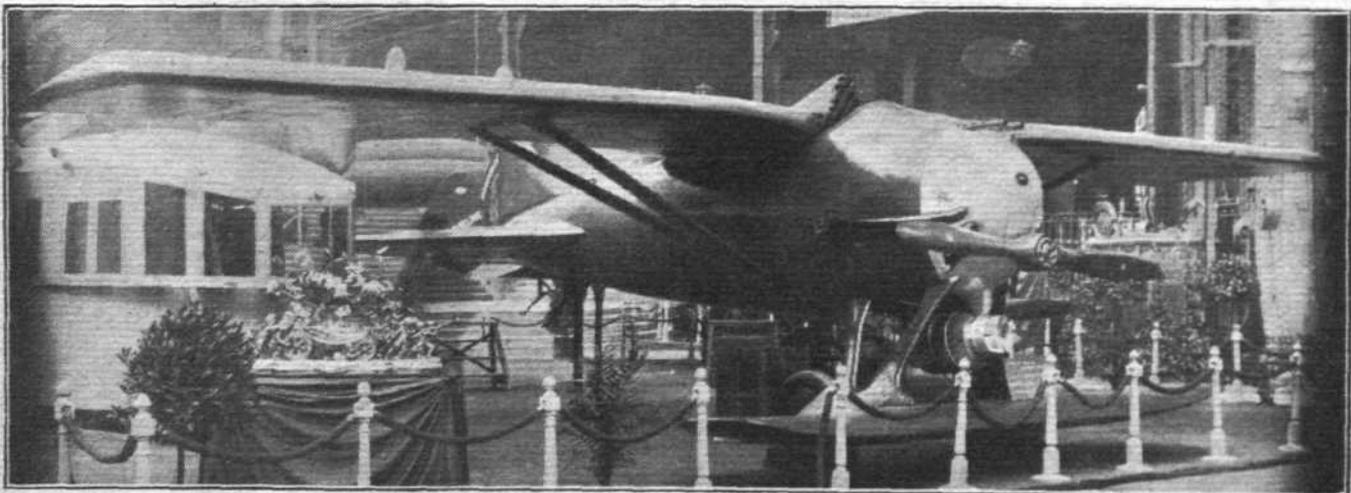
The petrol tank, which has a capacity of 240 litres (53 gallons), is placed in the fuselage, behind the pilot. Arrangements are provided so that the tank can be quickly released in case of emergency. The petrol is forced to the engine by A.M. pumps. A single Lamblin radiator is mounted centrally between the front chassis struts. It is provided with a shutter, operated by a small differential gear, which admits

air to or shuts it off from the inner portion of the radiator. The main characteristics of the Nieuport-Delage 37 C-1 are as follows: Length, 7.16 m. (23 ft. 5 ins.); span, 11.8 m. (38 ft. 8 ins.); chord, 2 m. (6 ft. 7 ins.); wing area, 22 sq. m. (237 sq. ft.); area of auxiliary plane, 5.02 sq. m. (54 sq. ft.); total lifting surface, 291 sq. ft.; weight empty, 980 kg. (2,160 lbs.); useful load, 220 kg. (484 lbs.); weight of fuel, 180 kg. (396 lbs.); total loaded weight, 1,430 kg. (3,148 lbs.); power loading, 10.5 lbs./h.p.; wing loading (counting both planes), 10.8 lbs./sq. ft. No performance figures are available.

**HENRY POTEZ, Levallois-Perret (Seine).**

As one of the younger firms of the French aircraft industry, Henry Potez is gradually working towards a prominent position by sheer commonsense design and good workmanship. A number of Potez machines have been in use on the Paris-Prague line, and have, it is believed, given very good results, although not being of the latest type. The military Potez machines have also come to be regarded as sound, reliable aeroplanes, in which there is little in the way of brilliancy, but a great deal in the matter of careful painstaking work.

Three machines were exhibited at Paris, of which one was a two-seater fighter of very usual design, but built almost entirely of metal. As, however, the machine was not, as so many other metal machines, shown in skeleton, it was not possible to find out very much about the detail construction. The machine was of the type XI c.a.p.-2, with Lorraine engine and Rateau supercharger. The front and rear portions



**NIEUPORT-DELAGE :** The "Sesquiplan" is similar to the racer built for the Coupe Deutsch, and has its wheels mounted in cut-out portions of the small undercarriage plane.