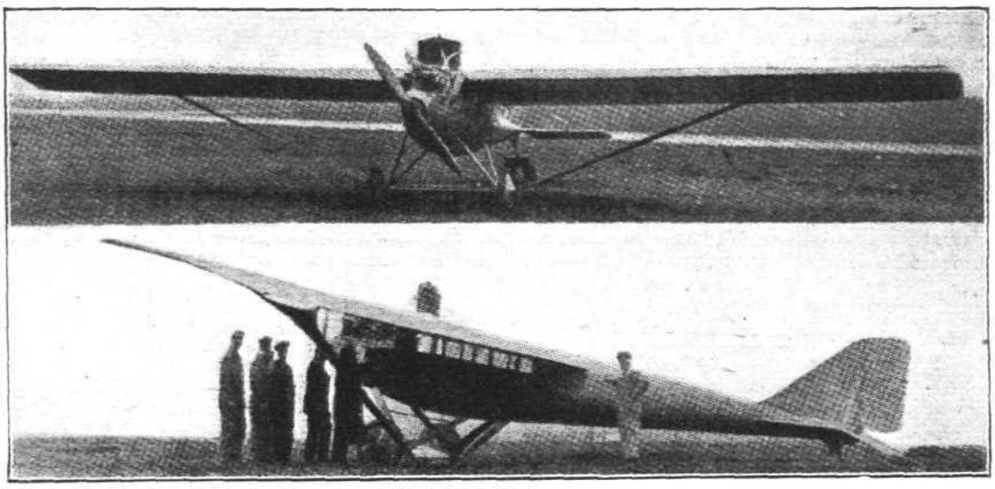
THE JACUZZI SEVEN-SEATER MONOPLANE

AN interesting American commercial 'plane has been constructed by Jacuzzi Bros., of Berkeley, California, in which are incorporated several novel features. We give below some particulars of this machine, which appear in our American contemporary *Aerial Age*. It is a monoplane having externally braced wings of a comparatively thin section, giving a high maximum L/D at low angles of incidence and high speed. The chord of the wings tapers considerably from root to tip, which enables a uniform wing section to be employed throughout, and at the same time giving a deeper section at the root—a feature possessing advantages from a structural point of view. The wings are of wood construction, fabric covered, and are attached, high up on the *fuselage*, to a "centre section" which forms the roof of the cabin. They are braced by a streamline sectioned strut under each wing, there being no top bracing. These bracing struts are anchored at their lower and inner ends to the landing chassis tie-rod just aft of the wheels, and the top and outer extremities, which terminate in a Y-head, are attached to heavy metal fittings on the main wing spars at a point about two-thirds out on the wing. The wings are set at a slight dihedral angle, and *ailerons* are hinged to the outer ends of the rear spars.

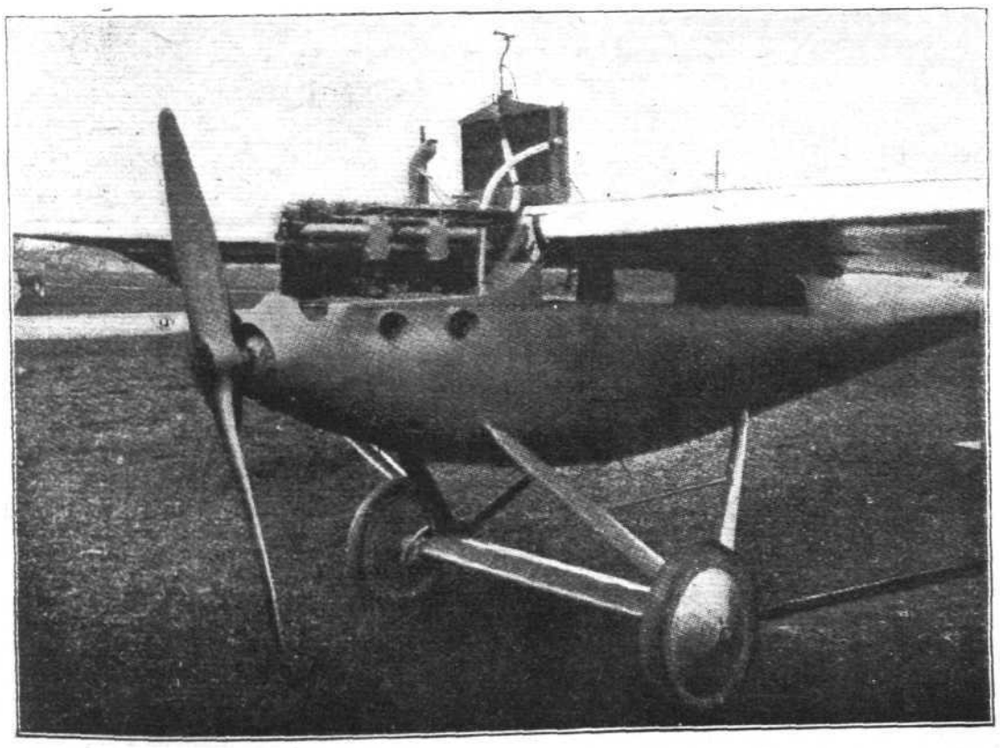
The *fuselage* is of a very clean streamline form, and is, considering the number of passengers carried, of comparatively small proportions. It is built up of six main longitudinals $1\frac{5}{8}$ in. by $\frac{7}{8}$ in. and 18 auxiliary members $\frac{7}{8}$ in. by $\frac{3}{8}$ in., all supported by 14 ply-wood bulkheads. The covering is of $\frac{1}{4}$-in. ply-wood. The rear extremity of the *fuselage* consists of an aluminium casting containing the bearings for the rudder and elevators.

The seats are arranged in three tandem rows, the first seating two—pilot and passenger or two pilots—the second holds three and the third two. In front of the cabin at the leading edge of the wings and on each side of the engine is a window through which a good forward view is obtained. These windows may be cleaned when required from openings provided at the sides. On each side of the cabin are large windows giving an unobstructed view below. Access to the cabin is obtained by a door in the left-hand side of the *fuselage*, the seats, on that side, of the first and second rows hinging out of the way.

A 200 h.p. L-6 Hall-Scott engine is installed, driving a tractor screw of 8 ft. 2 in. diam. At normal horizontal flight (100 m.p.h.) the engine is required to run at only half-throttle, so that there is an ample reserve of power. Every possible precaution against fire has been taken in the installation of



The Jacuzzi Seven-Seater Monoplane: Front and side views.



The Jacuzzi Seven-Seater Monoplane: Close-up view, showing the cabin, engine, etc.