

## THE "J.L.-12" ATTACK 'PLANE

AN all-metal, armoured attack monoplane has just been built in America by the J.L. (John Larsen) Aircraft Corp., of New York. This machine is known as the "J.L.-12," and, as will be seen from the accompanying illustration, bears a strong resemblance to the Junker all-metal monoplane. It is reported that a "J.L.-12" made a remarkable flight on October 21 last, when, piloted by Capt. B. H. Pearson, it left the J.L. aerodrome at Central Park, Long Island, at 9.15 a.m., and flying against a 60 m.p.h. head-wind at 2,500 ft., arrived at Washington at 11.45 a.m., thus covering the distance of about 200 miles in 2½ hours, or at a speed of 80 m.p.h.

The principal feature of the "J.L.-12" consists of its armament of 30 Thompson machine guns. These are arranged in a main battery of 28 guns in two sections. The first section is of 12 guns, located directly behind the pilot's seat, and the second, of 16 guns, is mounted at the rear. Firing is operated by three levers, one firing the 12-battery, the other firing the 16-battery, whilst the third lever puts all 28 guns into action. The two remaining guns are operated independently by the pilot, or gunner, from the cockpit.

The main battery is located in the floor of the fuselage, the first section of 12 being set at a slight forward angle, and six of the second section fire directly downwards, the remainder being trained slightly aft. The circular drums for the guns contain 100 cartridges, and the ammunition equipment for the machine in battle trim consists of three drums for each of the thirty guns. The replacement of fresh magazines for all the guns requires only four minutes.

It is claimed that by operating the *ailerons* so as to rock the machine laterally, an effective side rake fire is obtained. The proposed functions of the "J.L.-12" are to provide a machine having high speed, quick climb and controllability, which can be used against infantry, convoys, etc. It will dive down on the enemy, and flying low over him, open fire and then climb rapidly to a safer altitude in order to give the gunner an opportunity to renew the magazines before another similar attack.

As regards the construction of the machine, this is, we believe, a modification of the Junker, already described in *FLIGHT*. American-made aluminium alloy is employed in its construction, the metal sheets being  $\frac{5}{16}$  of an inch thick. The armour, presumably on the lower portion of the fuselage, is  $\frac{3}{8}$  in. armour-plate. The machine is braced throughout with steel.

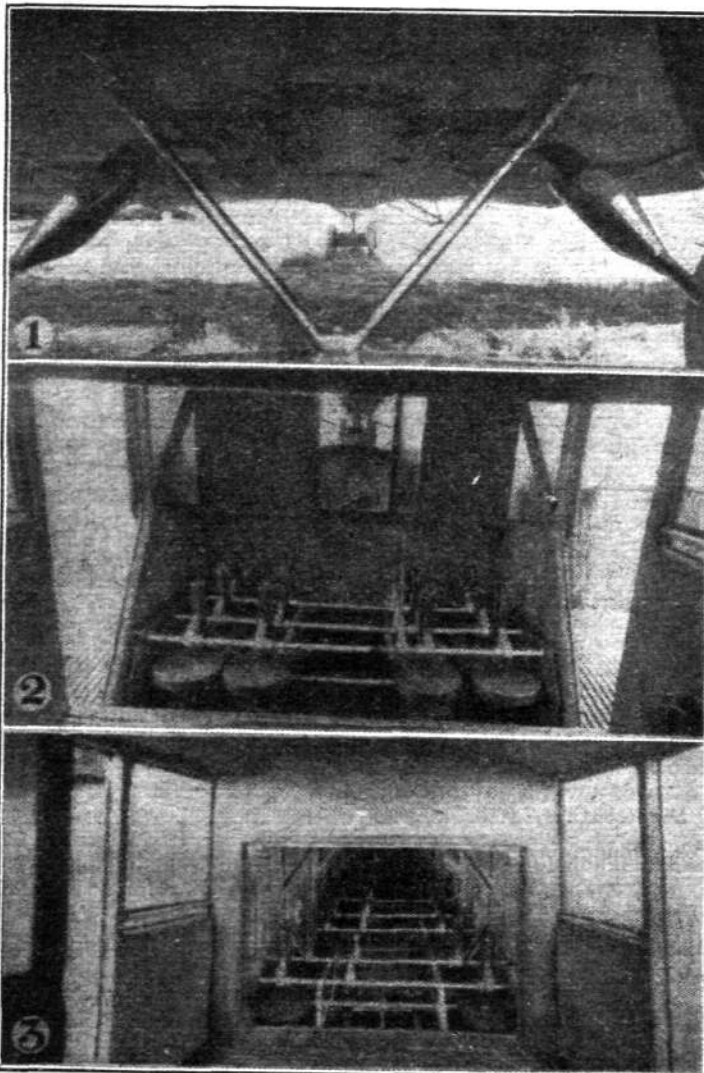
The principal characteristics of the "J.L.-12" are:—

Span .. .. .	49 ft.
Over-all length .. .	32 ft.
Engine .. .. .	400 h.p. Liberty
Weight (empty) .. .	2,900 lbs.
Weight (fully loaded)	5,000 lbs.
Weight of armour, armament and magazines .. .	3,848 lbs.
Weight of fuel (5 hrs.)	800 lbs.
Weight of pilot and gunner .. .. .	352 lbs.
Speed range .. .. .	55-145 m.p.h.
Climb .. .. .	1,000 ft./45 s., 10,000 ft./11 mins.
Range of action .. .	400 miles.

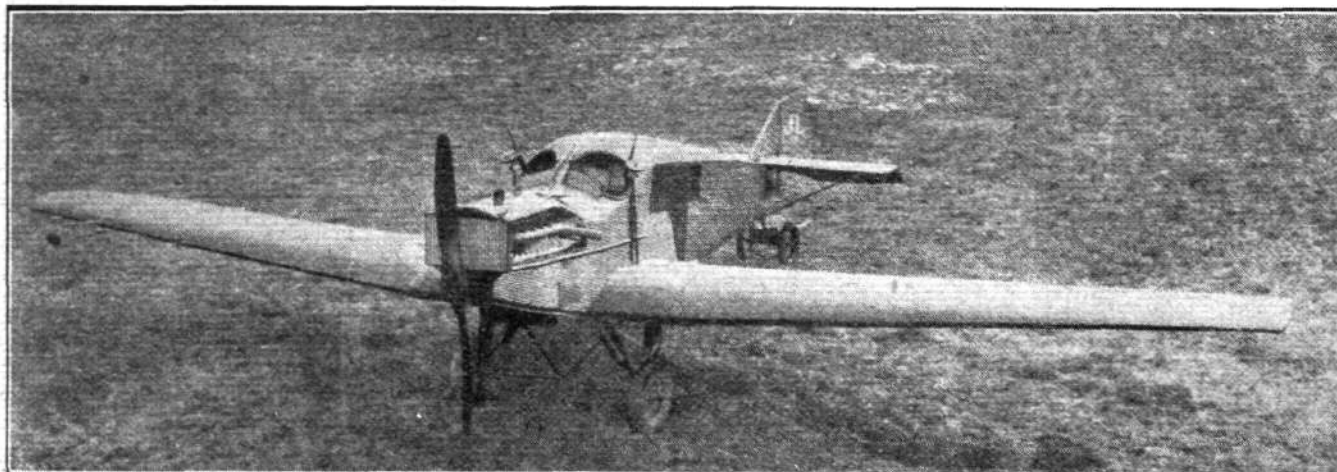
In discussing the machine Mr. Larsen stated that "It has been put through the most severe tests already, and the flying and the battery performance have been perfect.

"One marked feature of the machine is its climbing ability. During a recent test it climbed the first 1,000 feet in forty-five seconds, and rose to 10,000 feet in less than twelve minutes. It is as fast as a scout 'plane, and has high qualities of manœuvring at speed."

It was a similar but smaller machine to the J.L.-12—the J.L.-6—that created an endurance record (26 hrs. 19 mins. 35 secs.) recently.



THE "J.L.-12" ALL-METAL ATTACK MONOPLANE: Three detail views. 1. Looking aft below fuselage, showing gun-posts. 2. Interior view looking forward, showing a battery of 12 guns. 3. Interior view looking aft, showing the rear battery.



THE "J.L.-12" ALL-METAL ATTACK MONOPLANE: Three-quarter front view.