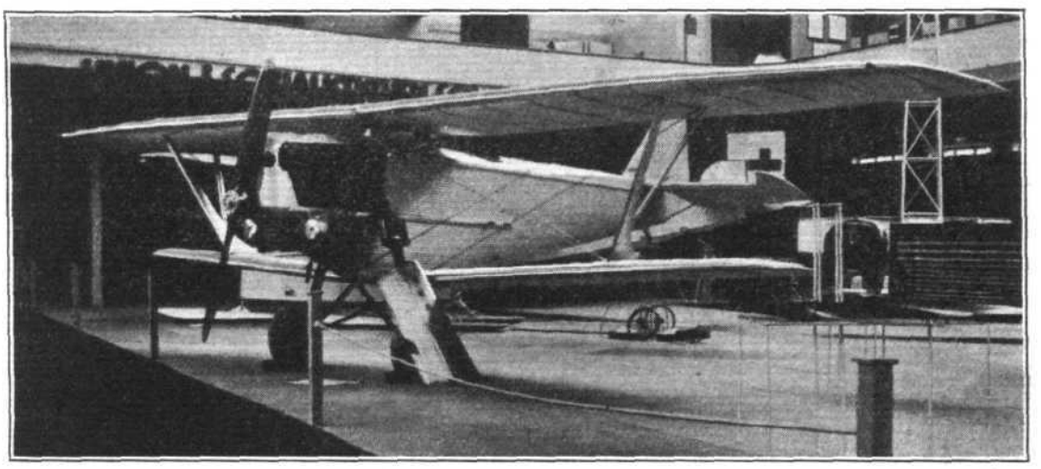
FLIGHT
AIRCRAFT ENGINEER AIRSHIPS



**A Russian Mail 'Plane: The A.N.T.3 sesquiplane is of all-metal construction, and bears strong evidence of German (Junkers) influence with its corrugated Duralumin covering. The fuselage is of approximately triangular cross-section.**

designed for long-distance flights, the normal load of 5,100 lbs. is made up as follows: Crew of four, 320 kg. (700 lbs.); petrol and oil for 15 hours at "normal" throttle, 1,800 kg. (3,960 lbs.); equipment, 50 kg. (110 lbs.); instruments, etc., 150 kg. (330 lbs.). Maximum speed near sea level, 185 km./h. (115 m.p.h.). Climb to 1,000 m. (3,280 ft.) in 12 mins.

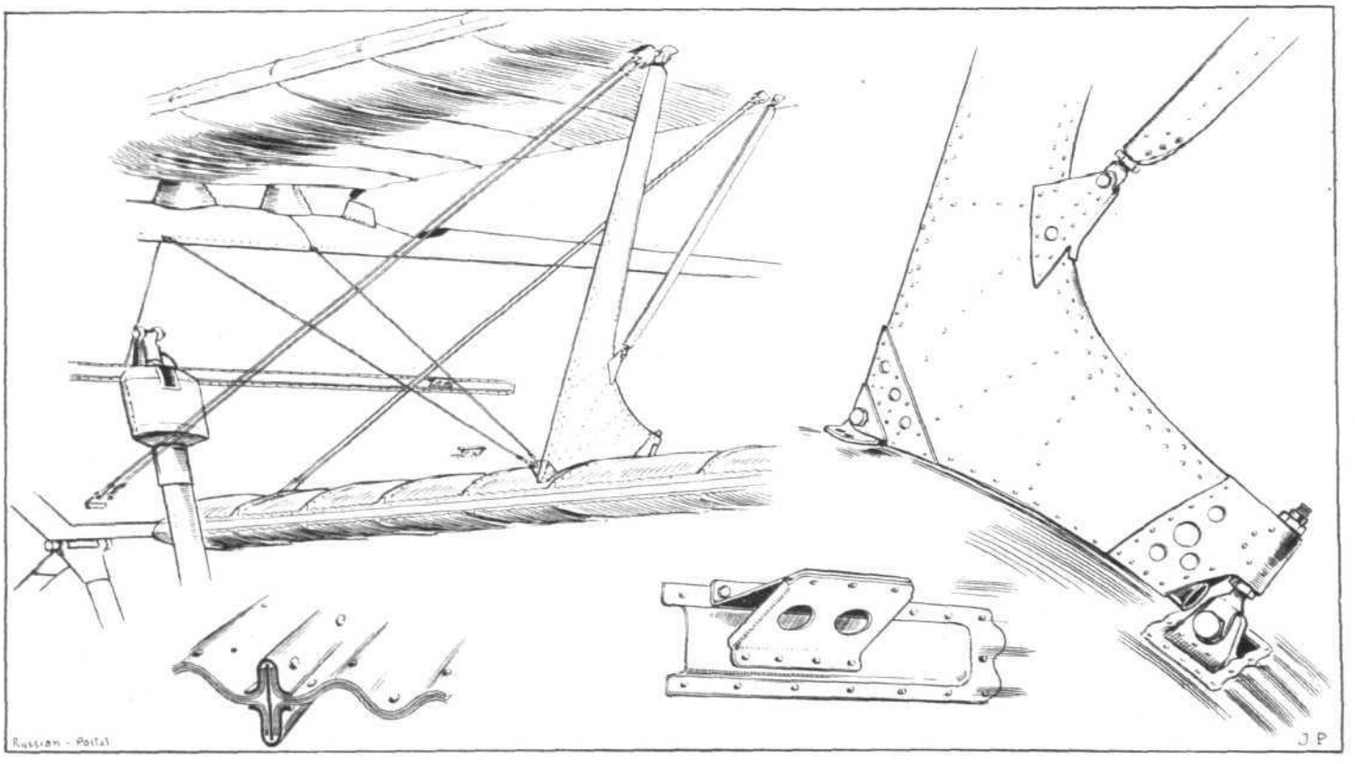
The second machine exhibited on the Heinkel stand was described as a "sport-, travel and courier" machine. It was a heavily staggered biplane, with the works denomination H.D.22. The type is not new, having made its appearance in 1926, and has been sold in fairly large numbers, among those having used it being Major Reinburg of the American Embassy in Berlin.

The machine shown at the I.L.A. was fitted with one of the Junkers L.5. engines rated at 300 h.p. The fuselage of the H.D.22 is of welded steel tube construction, while the wings are of two-spar wood construction, with the lower surface covered with plywood and the upper with fabric. The petrol tanks, with a capacity of 400 litres (88 gallons), are housed in the top plane, giving direct gravity feed.

The main dimensions, weights, etc. of the H.D.22 are: Length o.a., 8·3 m. (27·25 ft.); span upper, 12 m. (39·4 ft.); span lower, 10·4 m. (33·9 ft.); wing area, 34·8 sq. m. (375 sq. ft.). Tare weight, according to engine fitted, 1,000 kg. to 1,200 kg. (2,200 lbs. to 2,640 lbs.). Permissible load, 500 kg. (1,100 lbs.). Gross weight: up to 1,700 kg. (3,740 lbs.). Performance figures are not available for the machine as fitted with the Junkers L.5 engine, but with the B.M.W. IV, the top speed is 189 km./h. (117·5 m.p.h.), and the ceiling 5,150 m. (16,900 ft.).

### The Italian Machines

Not one of the machines exhibited by Italy could fairly be described as a commercial type, and we do not, therefore, propose to devote space to a description of them. All and sundry, with the exception of the Macchi racer, had ominous swellings around the rear cockpit, swellings which are perfectly respectable in a service machine, but simply "not done" in a commercial or sporting type of aircraft. How these types managed to "get by" the exhibition authorities is still something of a mystery, especially in view of the fact that difficulties were raised about exhibiting even photographs of military aircraft.




["FLIGHT" *Sketches*

**RUSSIAN METAL CONSTRUCTION AT THE BERLIN SHOW: The mail 'plane A.N.T.3 was built entirely of Duralumin. The larger sketch shows the wing bracing, while insets illustrate details of the wing strut attachment with incidence adjustment, the step on the side of the fuselage, and the method of finishing off the trailing edge of the metal wing covering.**