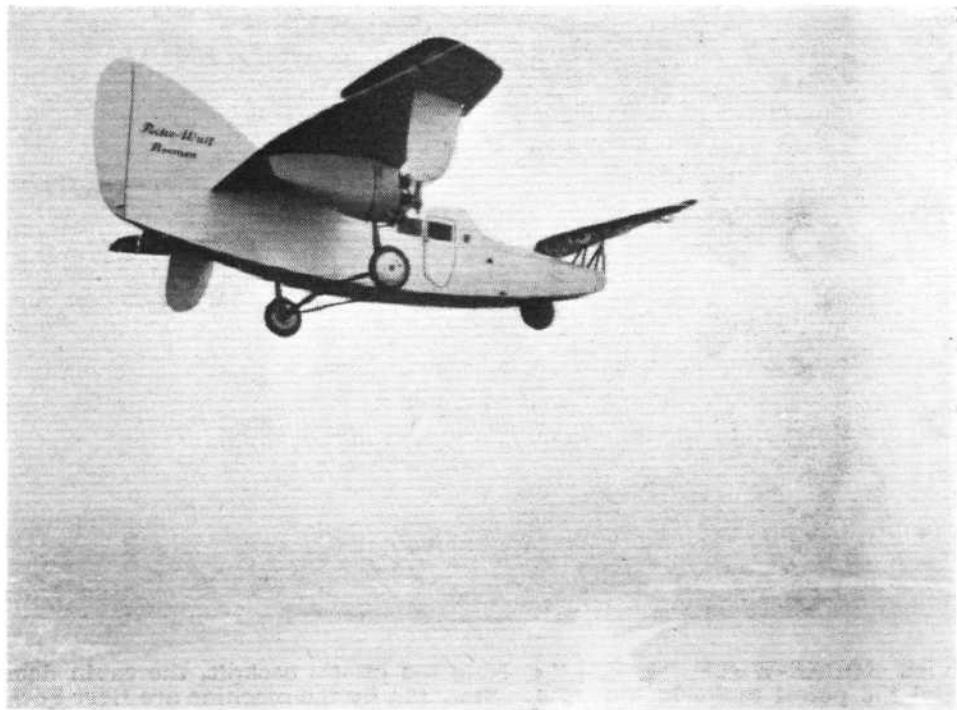


direction to the vortices of these eddies. The propeller blast will then become practically straight. By fitting the propellers behind the main wing, their blasts go straight out into the air without touching any part of the plane. This arrangement has not been adopted in the present plane, as the makers did not consider the connecting shaft problem between engine and propeller sufficiently cleared up, and they did not want to enter into any new experiments.

All these are advantages worth considering, and they make it intelligible why the German Aeronautical Research Institute attaches such importance to the new type of plane. It will be recollected that the first Focke-Wulf canard plane was completed in 1927 and that several successful flights, in fact 14, were accomplished with it, before, on September 29 of that year, Herr Wulf, the associate of Hinrich Focke, crashed with the plane and lost his life. This accident, it must be pointed out, was discovered to be no result of any flaw in the "canard" principle, but was traced to a special kind of control of the front wing, which has now been dropped, and to which reference will be made later.

The new Focke-Wulf "Ente" has a total length of 34.5 ft., and the lower surface of the fuselage is square with a slight curve in the longitudinal direction making the ends come upwards. It is built up of welded steel tubes covered with fabric, and the main wing, which is of the peculiar Focke-Wulf type and has the ailerons in the normal position, is built up of wood, likewise fabric covered. It has a span of 33 ft. and a lifting surface of 317.5 sq. ft. It lies on top of the fuselage and is secured there in a recess, its leading edge being about 12 ft. away from the rear end of the fuselage. Left and right of the latter, fitted immediately under the wing, are engine nacelles carrying at their forward end each one Siemens & Halske radial engine of 100 h.p. output. Behind the engines, inside the nacelles, are fireproof bulkheads, and again behind these are the upper ends and the rubber ring shock absorbers of the telescopic legs. The wheels beneath the main wing are supported on divided axles. The engine nacelles also carry



**"TAIL FIRST" :** In this view of the Focke-Wulf "Ente" in flight can be seen the undercarriage, the outboard fins, and the very large fin and rudder.

the oil tanks, whilst the fuel tanks are located in the wing nose, right and left of the fuselage.

Immediately in front of the leading edge of the main wing begins the three-place passenger cabin, entered by a door on the right side. In front of the passenger cabin the top of the fuselage sweeps down embracing at this point the pilot's open cockpit. In front the fuselage ends in a blunt point, above which it carries trestle struts, which support the front wing.

The latter has a span of 16.4 ft. and a lifting surface of 64.6 ft. It is trapezoidal, or almost triangular in shape, with a straight and long leading edge. The trailing edges meet at an obtuse angle, and their under surfaces are recessed for the elevators. These are compensated and supported by a number of brackets holding them so that there is a slot between them and the wing, which slot becomes narrower when the elevators are depressed for climbing, and larger



**THE FOCKE-WULF "ENTE" :** Two views of the front plane. Note the slot arrangement of the elevator flaps.