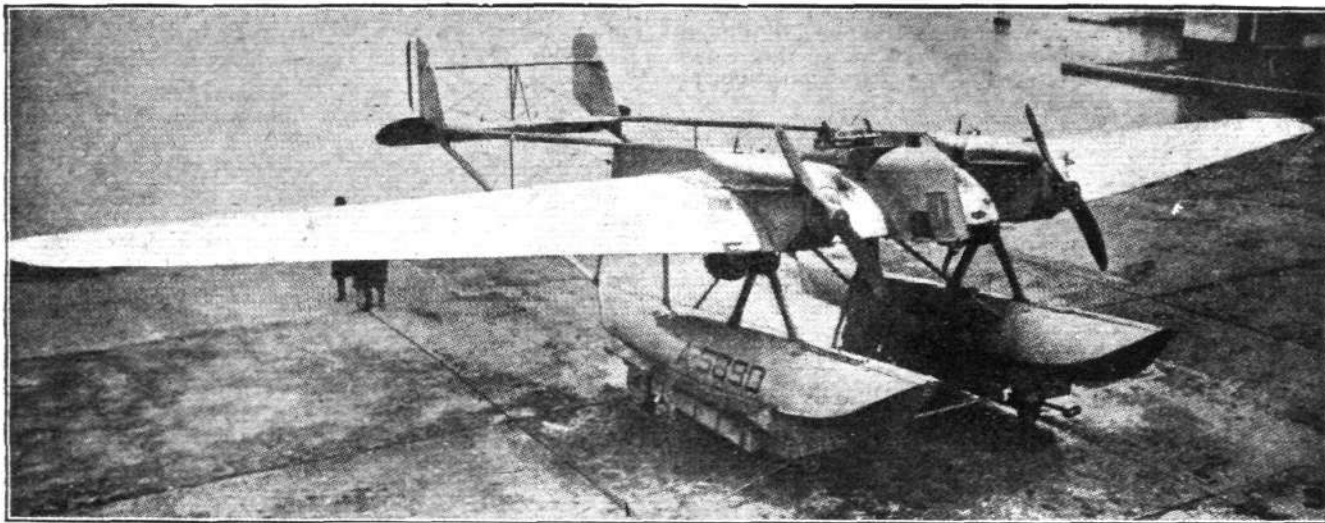


THE CURTISS TWIN-ENGINE TORPEDO SEAPLANE

A Cantilever Monoplane of Novel Design

THE Curtiss Aeroplane and Motor Corporation of Garden City, L.I., U.S.A., has just completed a very interesting type of torpedo 'plane known as the Curtiss C.T. Through the courtesy of our American contemporary *Aviation*, we are able to give our readers the following brief particulars and illustrations of this machine. It is, perhaps, one of the most advanced designs yet produced in the "States," and, judging from general appearances, it certainly seems to be a "business proposition."

projecting forward but slightly beyond the leading edge, located on either side of a main central *nacelle* on the centre section of the wings. The pilot, gunner and bomber are located in the central *nacelle*. Cooling is by two Lamblin radiators mounted under the engine *nacelles* below the wing. The engine instruments are mounted on the side of the *nacelle* in plain view of the pilot. Wood construction is used practically throughout, but in future models it is expected that metal construction will be employed.

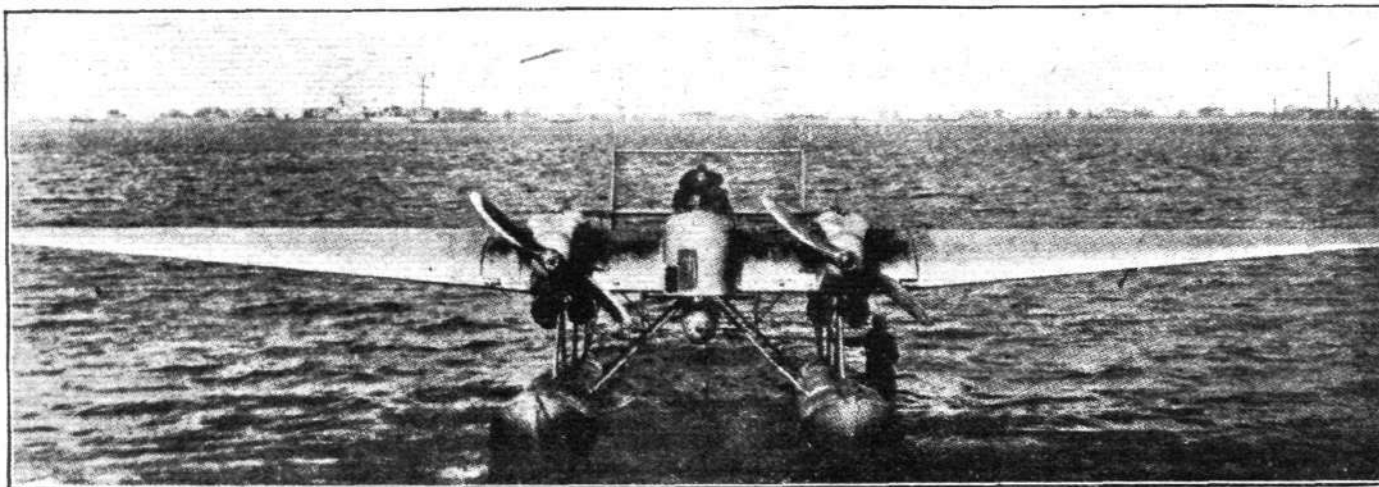


THE CURTISS C.T. TWIN-ENGINE TORPEDO SEAPLANE: Three-quarter front view showing how the tail is carried by outrigger tail booms.

This machine has been built for the U.S. Navy, and was developed by the engineers of the Curtiss Co. working under the supervision of the Naval Bureau of Aeronautics. The problem before the designers was to develop a machine large enough to carry a full-size torpedo, yet be able to manoeuvre quickly and accurately around a hostile fleet, and find without detection the proper position for launching the torpedo. Unlike the big bombing 'planes, which drop their bombs from a great height, when they are more or less free from anti-aircraft fire, the torpedo 'plane must deliver its projectile

The wings are covered with fabric, and taper both in chord and camber from root to tip. They have a span of 65 ft., and the chord at the root is 16 ft. when the maximum thickness is 30 ins.—giving a maximum wing depth of 15.6 per cent. The under-carriage consists of two long floats, one under each engine; they are sufficiently far apart to obviate the need for wing-tip floats, whilst their length likewise dispenses with tail floats.

The *empennage* is supported on outrigger booms, one of a pair running from the rear end of the float and the other



THE CURTISS C.T. TWIN-ENGINE TORPEDO SEAPLANE: A cantilever monoplane with a large pontoon float under each engine; note the torpedo mounted below the central nacelle.

from within a few feet of surface of the water. Therefore, it is essential that the machine be as inconspicuous as possible, and in this respect it is claimed for the C.T. seaplane that, owing to its distinctive design, it more nearly meets these requirements than most other aircraft, for at a distance of about two miles it is said to be practically invisible.

The Curtiss C.T. is a cantilever monoplane with its two engines mounted practically in the wings. These engines, which are Curtiss C.D. 12 of 385 h.p. each (described in *FLIGHT* for Jan. 5 last), are installed in small *nacelles*

from the rear of the engine *nacelle*—the pairs being parallel. There are two vertical fins and two balanced rudders, and a one-piece balanced elevator. The rudders and fins are directly in the slipstream of the airscrews, and the rudder control is rather interesting. There is only one control horn on each rudder, in the space between the latter. The tips of the balanced portions are connected together by a wire, so that a pull on one control horn is transmitted *via* this wire to the other rudder.

This machine has a high speed of 112 m.p.h., and with