"Mothers" for Airplanes at Sea

How the Atlantic Ocean or the war zones can be protected with relays of seaplanes

By A. L. Aldey

AERIAL convoys for transports and merchant vessels crossing the high seas, aerial protection for harbors, aerial raiding bases for sea attacks, and transoceanic aerial patrol service—by these uses of air-craft might perhaps be given the vital blow to the German submarine.

Why not, though, airplane bases at sea? And if at sea, why not all the way across the Atlantic? Why not airplane stations in and near harbors, where the craft can be despatched, received, overhauled, and refitted? Why not, in other words, not only a maximum of aerial coast defense but an open sea lane, patrolled day and night by planes?

Such a cross-sea lane is not as yet needed, perhaps. But the lane could be extended from English and continental shores as far as required to give ample protection within the operating zone of the German submarines.

What I propose here is the adaptation of a German idea—that of the "mother ship" for submersibles—to the airplane, at the same time retaining the protective and repair value for submarines and destroyers embodied in the Teuton ship; with the further expansion of the use of these double vessels on the open sea where they can be utilized as starting and receiving points for aerial patrols, for light ships, for relay wireless stations, for defense points against torpedo raids.

Take then, by way of summary of this plan, two separate hulls, so connected by superstructure as to form one boat with two bottoms. Two sets of engines and double rudders would provide for the handling of this double-hull ship.

The superstructure above these hulls may be most briefly described as a "platform," a deck of extreme width and length, from which air craft could be launched and, in some instances, received.

Between the hulls is a natural harbor, the water of which is made calm by the lowering of end gates to keep out the waves. From beneath the upper "platform," or deck, hangs a false deck which may be lowered into the water. This lowered deck and the end gates form, with the hulls, a huge tank into which hydro-airplanes can descend, and by means of which they may be elevated to the upper deck for overhauling. Similarly submersibles, destroyers, and small water craft can be driven into this protective space and taken out of water for repairs and scraping.

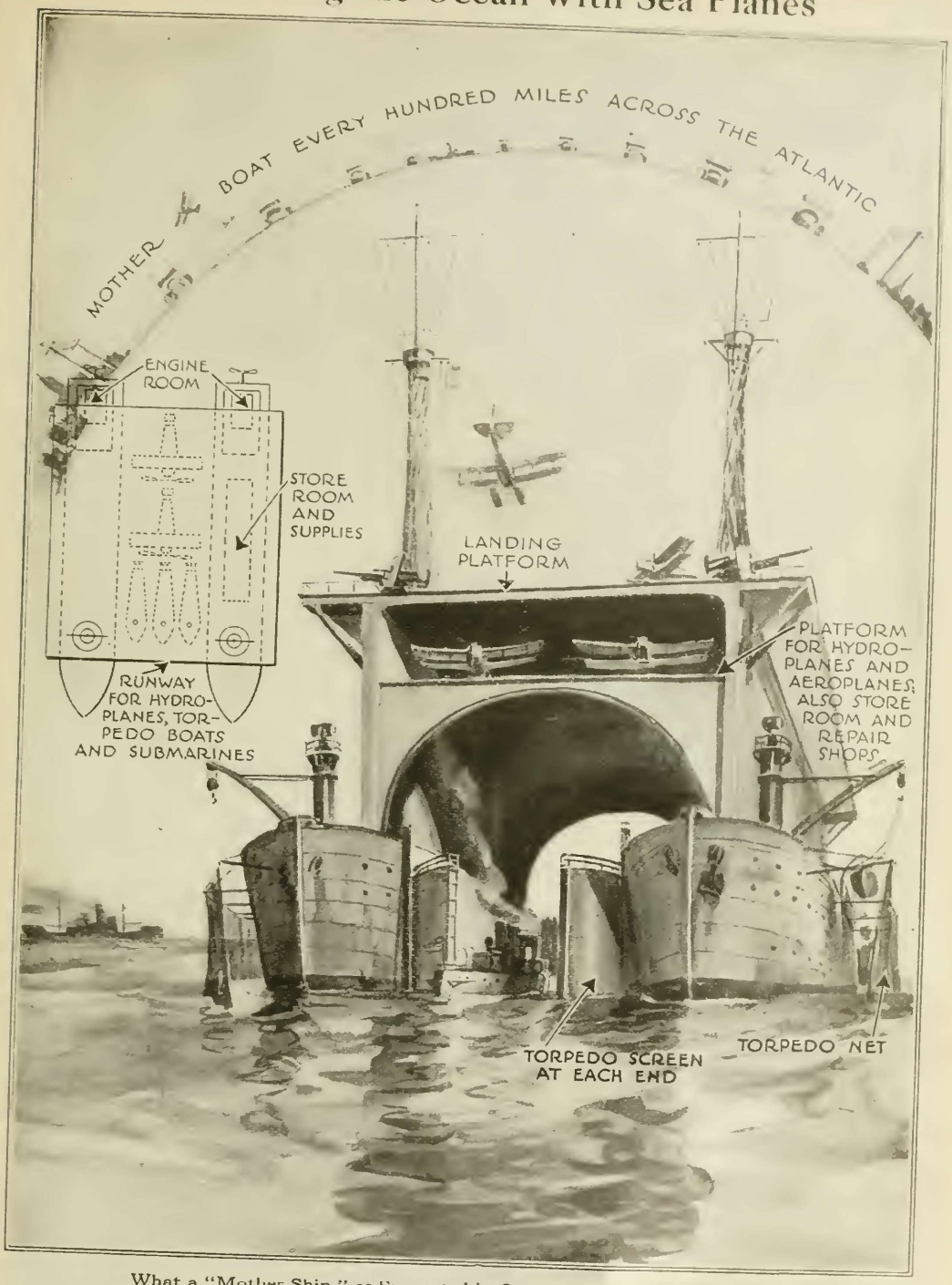
The stationing of such "mother ships" at intervals of, say, a hundred miles all the way across the Atlantic would provide an open lane for transports and merchantmen. One hundred miles an hour may be given as an average speed, all weathers and models considered, for an airplane. These stations, then, would be but an hour apart by air route. At no time would any airplane patrolling from one station to another be more than half an hour's ride from another.

Constant patrolling by aerial routes from one station to another would keep the sea clear of under-water raiders. Communication would be so rapid, discernment so easy, that the submarine would be less deadly than it has proven to be. The air could be kept filled with the flying scouts, passing from station to station, one hundred miles and return, with communication maintained by wireless, not only between airplane and floating harbor, but between the stations themselves.

Once a periscope has been sighted anywhere within radius of the sea lane, general knowledge of it is known; and from the "mother ships" debouch a fleet of destroyers.

For the protection of the "mother ships" torpedo nets would be provided. Besides there are the accompanying destroyers, the "mother ship's" own heavy artillery and munitions. It would be a rash submersible navigator who would invade the precincts of such a lane.

Patrolling the Ocean with Sea Planes



What a "Mother Ship," as Suggested in Our Article, Would Look Like

In the accompanying article the writer propounds a scheme for placing one of these vessels at intervals of a hundred miles, all the way across the Atlantic. They would be fully equipped with spare parts and supplies for airplanes and submarines. They would also carry wireless apparatus, and would, in fact, be fully equipped naval bases in miniature. They would repair seacraft and airplanes and would relay wireless messages, being official stations. They themselves would be protected by torpedo nets, heavy guns, and fleets of destroyers, for which they would form a base. In fact, their use in every direction is limited only by their size