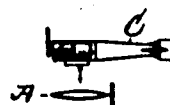
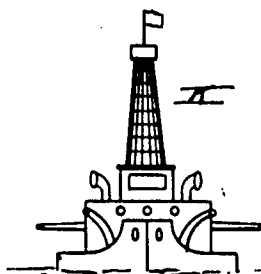
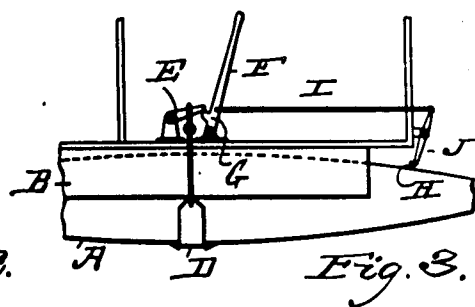
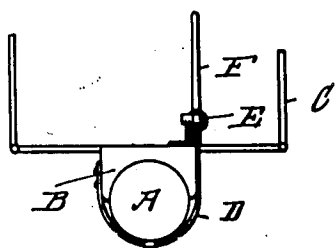
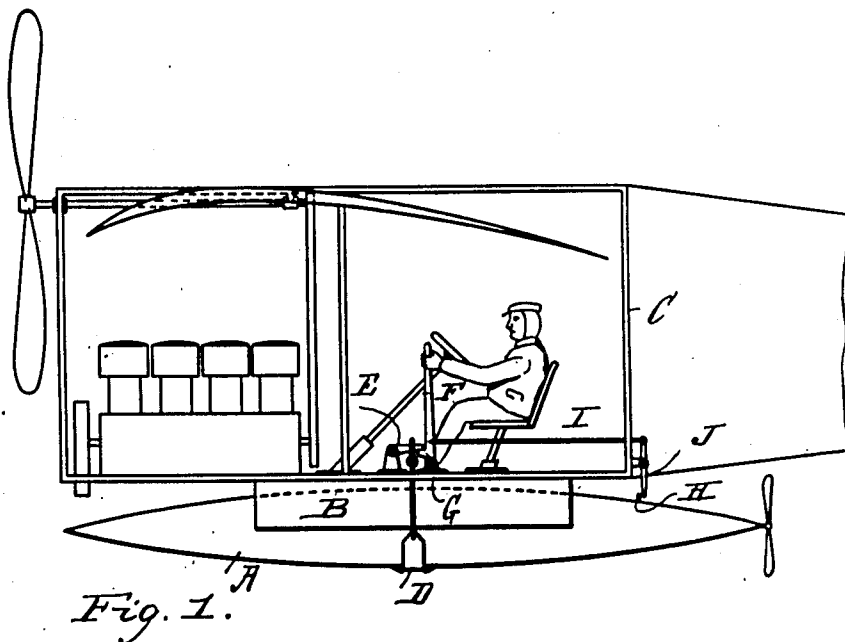


B. A. FISKE.  
 METHOD OF AND APPARATUS FOR DELIVERING SUBMARINE TORPEDOES FROM AIRSHIPS.  
 APPLICATION FILED APR. 12, 1912.

1,032,394.

Patented July 16, 1912.



Witnesses:  
*Arthur D. Porter*  
*May T. M. Harry*

Fig. 4

Inventor  
*Bradley A. Fiske*  
 By his Attorney  
*John A. Swamin*

# UNITED STATES PATENT OFFICE.

BRADLEY A. FISKE, OF THE UNITED STATES NAVY.

METHOD OF AND APPARATUS FOR DELIVERING SUBMARINE TORPEDOES FROM AIRSHIPS.

1,032,394.

Specification of Letters Patent. Patented July 16, 1912.

Application filed April 12, 1912. Serial No. 690,271.

*To all whom it may concern:*

Be it known that I, BRADLEY A. FISKE, of the United States Navy, a citizen of the United States, have invented a certain new and useful Improvement in Methods of and Apparatus for Delivering Submarine Torpedoes from Airships, of which the following is a specification.

The invention is a method of and apparatus for directing and delivering the attack of a self-propelled submarine torpedo upon a floating target.

In the accompanying drawings—Figure 1 illustrates my apparatus for supporting the torpedo upon an aeroplane and for releasing the same therefrom, after the motor mechanism thereof has been started. Figs. 2 and 3 are enlarged end and side views of said apparatus. Fig. 4 shows the torpedo directed upon its target and falling by gravity after its release, from the aeroplane to the water.

Similar letters of reference indicate like parts.

I carry out my method preferably in the following way and by the following means. The torpedo A, which may be of the well known Whitehead or fish type, is disposed in chocks B on the bottom or lower frame of the air-ship C, preferably a swift flying aeroplane. A strap D connected at one end to the ship passes below the torpedo, and is provided at its other end with a ring received upon a pivoted latch E. A hand lever F on the air-ship is provided with a projection G which normally engages the latch E. In this manner, the torpedo is retained suspended in the chocks B in rigid position, with its bow pointing in the same direction as that of the air-ship. Torpedoes of this type usually have a protruding lever H which, when operated, starts the propelling mechanism. Connected by link I with lever F is a pivoted lever which has a toe J suitably placed to operate said starting lever H. The timing of the mechanism is to be such that when the hand lever F is moved by the aviator the starting lever H of the torpedo is first actuated (see Fig. 3) to start the propelling mechanism, and then the latch E is freed, so that the ring on strap D is released. The torpedo then falls horizontally out of the chocks B and into the water. In directing and delivering the attack upon the floating target indicated

at K in Fig. 1, the aviator flies at a comparatively high elevation to a point about 1500 yards from said target. He then swoops downwardly as rapidly and as nearly vertically as possible until within ten or fifteen feet of the water, meantime directing his flight so that on reaching the desired low elevation the bow of the torpedo bears on the target. He then throws his lever F, thus first starting the propelling mechanism, and then releasing the torpedo, so that it falls to the water, and thereafter performs its work in the usual way.

The advantages of the construction here shown are that the torpedo is firmly held to the air-ship, and practically becomes a part of it, so that the directing of the ship toward the target also directs the torpedo. It is suspended in the position which it assumes in the water—that is, horizontal—and retains that position after it is released. The releasing device is instantly controllable by the aviator and automatically starts the propelling mechanism in advance of freeing the torpedo.

The advantage of approaching the target at a relatively high elevation and then swooping down to a low one before releasing the torpedo, is that, if the target be an enemy's war vessel it is practically impossible with present guns to hit an object swiftly falling from a height, owing to the rapid resulting change in range and consequent elevation of the guns. The advantage of proceeding to a point within some 1500 yards of the enemy is to increase the chances of the torpedo getting home, and also to enable the air-ship to carry torpedoes of lighter weight, since torpedoes designed for long ranges are necessarily much heavier than those intended for short ranges. A number of swift aeroplanes, each carrying a light torpedo effective at 1500 yards, might be even more formidable than a large machine specially built to transport a torpedo effective at 5000 yards.

I claim:

1. The method of directing and delivering the attack of a self-propelled submarine torpedo upon a floating target, which consists, first, in transporting said torpedo through the air to a point of desired proximity to said target, second, training said torpedo in the desired direction, third, starting the propelling mechanism of said tor-

pedo, and, fourth, releasing said torpedo to fall by gravity to the water.

2. The method of directing and delivering the attack of a self-propelled submarine torpedo upon a floating target, which consists, first, in transporting said torpedo through the air over a path of relatively high elevation to the vicinity of said target; second, swooping downward to a point of relatively low elevation and training said torpedo in the desired direction, third, starting the propelling mechanism of said torpedo, and, fourth, releasing said torpedo to fall by gravity to the water.

3. In combination with an air-ship, a torpedo of the self-propelled submarine type, having an externally-controllable device for starting the propelling mechanism of said torpedo, means for retaining said torpedo below said ship, and, on said ship, means for operating said starting device and means for releasing said retaining means.

4. In combination with an air ship, a torpedo of the self-propelled submarine type,

having an externally-controllable device for starting the propelling mechanism of said torpedo, means for retaining said torpedo below said ship, and, on said ship, a manually controllable lever and transmitting mechanism actuated by said lever, first, to operate said starting device, and, second, to release said retaining means.

5. In combination with an air-ship, a torpedo of the self-propelled submarine type, having an externally-controllable device for starting its propelling mechanism, chocks for said torpedo below said ship, a strap for retaining said torpedo in said chocks, a latch for said strap, and, on said ship, a manually controllable lever for releasing said latch and transmitting mechanism actuated by said lever for operating said starting device.

In testimony whereof I have affixed my signature in presence of two witnesses.

BRADLEY A. FISKE.

Witnesses:

EDW. B. OLDS,

ALBERT P. MADEIRA.