C. M. WHEATON, DEC'D.
G. H. WHEATON, ADMINISTRATRIX.
MEANS FOR CONDUCTING SUBMARINE WARFARE.
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3 SHEETS-SHEET 3

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Witnesses:
H. E. Lottin
A. R. Faelan

Inventor:
C. M. Wheaton
by A. B. B. 

1,131,761
To all whom it may concern:

Be it known that I, Carl M. Wheaton, of Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Means for Conducting Submarine Warfare, of which the following is a specification.

This invention relates to a novel method of submarine warfare and to appliances and fittings adapted to be mounted in a submarine vessel for carrying on such warfare.

In its essentials, the invention consists in connecting a submarine vessel to the submerged portion of a floating ship by driving a pin or projectile through the bottom of the ship, and in subsequently injecting an anesthetic gas through the bore of the projectile, which is made tubular for this purpose, to overcome the crew of the ship, or in attaching a time bomb to the projectile and leaving the same to explode after the submarine has removed to a safe distance.

The invention more specifically consists in a novel form of gun, which can be projected from and withdrawn into the hull of the submarine, in the means for operating the gun, in appliances for containing and ejecting explosive bombs, and in a projectile adapted to be fired from such gun.

In the drawings, Figure 1 represents an elevation, partly broken away, showing a submarine vessel connected to a floating ship by one of these projectiles, and injecting anesthetic gas. Fig. 2 represents a similar view, showing the mode of attachment of an explosive bomb. Fig. 3 represents in section a gun projected from a submarine, with a tubular projectile therein ready for firing. Fig. 4 represents an elevation of the same, showing the projectile partly expelled from the gun and in the act of penetrating the outer bottom of the floating vessel. Fig. 5 represents a similar view, showing the projectile in its most advanced position after having penetrated the inner bottom of the ship. Fig. 6 is a detail sectional view on line 6—6 of Fig. 4, showing a preferred means for raising and lowering the gun, Fig. 7 is a section showing a bomb pocket and an arrangement of gun for pinning the bomb to the bottom of a ship; this view also showing a modified arrangement for projecting and withdrawing the gun. Fig. 8 represents an elevation of the bomb-contain-
being fired from the gun, its pointed end pierces the shell of the floating ship, but is arrested by the shoulder 30 coming against the plating. Thus the head remains protruding outward from the ship, and is retained within the gun of the submarine. Thus the two vessels are pinned together for subsequent operations. Several guns are preferably used, so that the two vessels are securely connected at a plurality of points. While so connected any convenient method of attack may be carried out.

Another manner of using the gun is to fire a projectile which is long enough to pierce both the outer and inner bottoms of the ship, this projectile being tubular from end to end. The sharpened point is made separable, and has a shank 31 which is set into the bore of the projectile and by which the point is centered, while the latter is being forced through the plates of the ship. A collar 32 surrounding the end of the projectile guides it centrally in the gun. When such a projectile is fired, the shoulder 30 springs up suddenly against the bottom of the ship, the projectile is sharply arrested, and the shock causes the separable point to fly off, as shown in Fig. 5, leaving the bore of the projectile open from end to end.

Through a tube 33 connected inside of the gun, is now forced a volatile substance of a character such as to overcome and anesthetize the crew of the ship attacked. Preferably the attack is made at the central portion, and the anesthetic injected into the engine or boiler room, so that the men in these important parts of the ship are first put out of action. This renders the ship helpless, and makes it an easy prey for the attacking party. The anesthetic may penetrate so far as to overcome a large proportion or nearly all the whole of the ship's company, enabling the ship to be captured practically without loss of life.

The third method of use of the guns is for pinning a bomb to the vessel. Close beside the gun 34, shown in Fig. 7, is a tube 35 opening through the top of the turret. This tube is adapted to contain a bomb 39, which is inserted through the removable breech 37, and is expelled by compressed air or a manually-operated piston 38. Between the tube and gun is a passage 39 for a cord 40, which is attached at one end to the bomb and at the other to a collar or ring 41 placed over the muzzle of the gun. The latter, the bomb tube and the passage are covered by plugs 42 and 43 and a cover, 44 respectively, which are operated by beveled gears and levers in the manner before described, and are relatively arranged, as shown in Figs. 8 and 9. The plugs 42 and 43 are swung aside so as to leave the outlets for the projectile and bomb open, while the cover 44 of the passage is hinged at one side thereof, and is arranged so that a rod 44 may be pushed upward to swing it open. In case the rod is not operated in time the pull upon the cord as the bomb and projectile are forced outward, will automatically open the cover 44. The latter will drop back in place after the cord is removed, and is held closed by the water pressure and by the overlapping portions of the plugs 42 and 43. The projectile is shown at 50, and has the same characteristics as previously described; that is, having a reduced shank and an enlarged head separated by an abrupt shoulder.

When the projectile is shot from the gun it threads itself through the ring, and pins the latter against the bottom of the ship. At the same time the bomb is expelled and remains tied to the ship, as shown in Fig. 2. As the bomb has a time-exploding mechanism it may be safely attached and left to explode after the submarine moves away.

The means shown in Fig. 7 for advancing and retracting the gun consists of a cylinder 43 in the bottom of the submarine, having a piston 46. To the rod 47 of the latter is pivoted a link 48 which may be swung up and attached to the gun. A 3-way cock 49 turns compressed air through pipes to either side of the piston, and advances or retracts the gun.

I claim:

1. The combination with a submarine vessel, of a gun carried by said vessel, and a projectile having a pointed piercing end and an enlarged head adapted to be fired from the gun up to the head into the hull of another vessel, and to remain with its head within said gun as long as the muzzle of the gun remains sufficiently close to the hull of such other vessel, whereby the vessels may be pinned together.

2. The combination with a submarine vessel, of a gun carried by said vessel, and a projectile adapted to be fired from the gun into the hull of another vessel, and to remain partially within said gun, said projectile having a longitudinal bore, and provisions for forcing anesthetic into the gun whereby the same is caused to flow through the bore of said projectile into the other vessel.

3. A tubular projectile having a pointed separable head at one end and an enlargement between its ends, adapted to be fired from a submarine gun through the skin of a ship, until arrested by said enlargement, the head being arranged to be dislodged by the shock of the arrest.

4. A tubular projectile having a pointed separable head at one end and an enlargement between its ends, adapted to be fired from a submarine gun through the skin of a ship, and to be suddenly arrested by said enlargement, said head having a tapered shank entering the bore of the projectile, whereby
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the head is caused to be dislodged by the shock of the sudden arrest of the projectile. 5. The combination of a submarine vessel having an opening in its hull, a cover mounted on the outside of the hull with capability of swinging over and aside from such opening, and having a plug movable into the opening, and mechanism within the vessel for moving said cover outward to expel the plug, and aside to uncover the opening.

6. In combination with a war vessel, a gun normally retracted within the skin of the vessel, means for projecting said gun from the vessel, a projectile adapted to be fired from said gun and having an enlargement to limit the extent of penetration into the vessel attacked, said projectile being tubular, and adapted while remaining partially in the gun to constitute an extension thereof.

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

CARL M. WHEATON.

Witnesses:

E. Batchelder,

Arthur H. Brown.