Oct. 12 ,,1926. 1,603,098

R. L. WRIGHT

GUN CARRYING TORPEDO

Filed Feb. 27, 1918

Fig. 1.

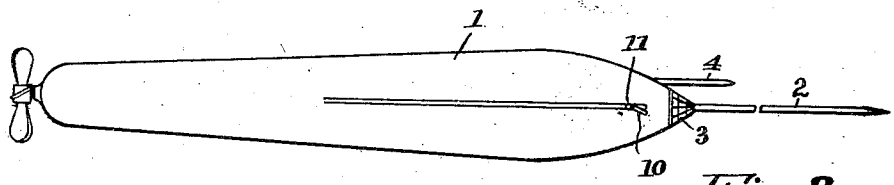


Fig. 2.

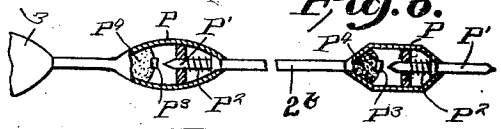


Fig. 8.

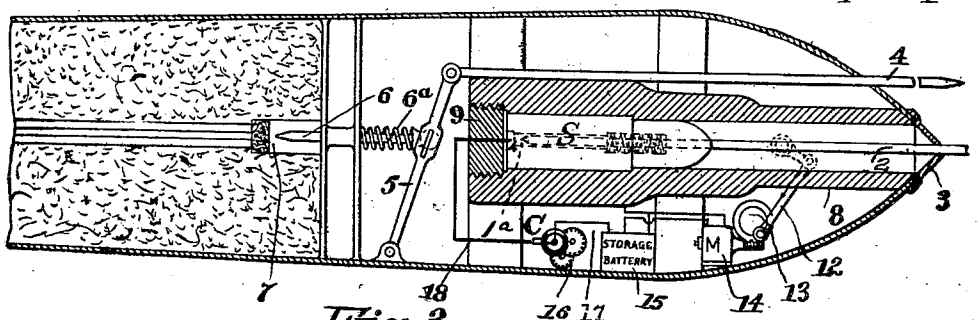


Fig. 3.

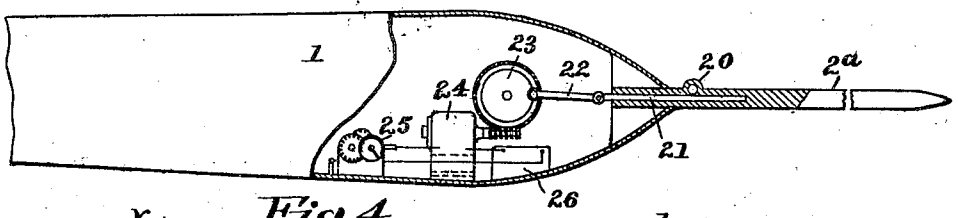


Fig. 4.

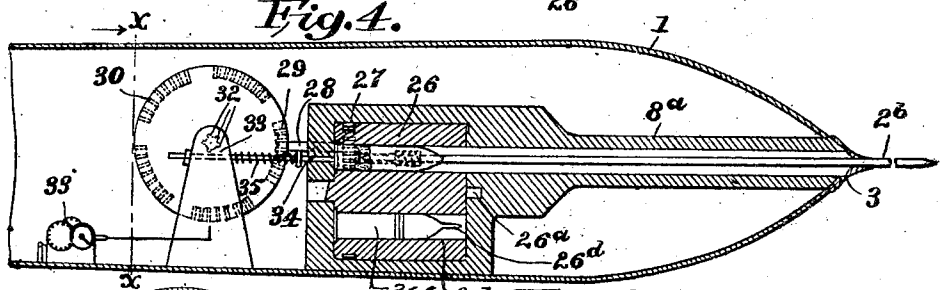


Fig. 5.

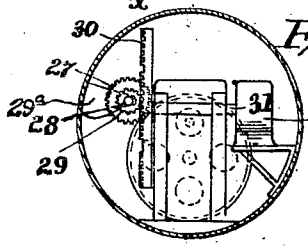


Fig. 6.

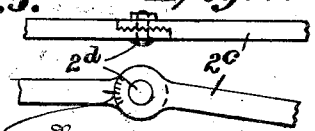


Fig. 7.

Robert Lee Wright
Inventor

By

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UNITED STATES PATENT OFFICE.

ROBERT LEE WRIGHT, OF LOS ANGELES, CALIFORNIA; WILLIE CROCKETT WRIGHT ADMINISTRATRIX OF SAID ROBERT LEE WRIGHT, DECEASED.

GUN-CARRYING TORPEDO.

Application filed February 27, 1918. Serial No. 219,391.

This invention has relation to a gun carrying torpedo and has for an object to provide a torpedo shell having a gun mounted therein and carrying a cartridge and projectile, the latter having a firing pin extending beyond the shell of the torpedo whereby upon engagement of the target the shell may be discharged and the projectile fired.

Another object of the invention is to provide a gun carrying torpedo of the character above described including in addition thereto a supplementary firing pin extending beyond the torpedo shell and having means operable thereby to discharge an explosive carried within the torpedo shell.

A still further object of the invention is to provide a gun carrying torpedo having a frangible nose normally covering the muzzle of the gun but adapted to be ruptured upon the discharge of the first projectile.

With these and other objects in view, the invention consists in the novel details of construction and combination of parts more fully hereinafter disclosed and particularly pointed out in the claims.

Referring to the accompanying drawings forming a part of this specification in which like numerals designate like parts in all the views:

Figure 1 is a side elevational view of a gun or rifle and torpedo combined, constructed in accordance with my invention.

Fig. 2 is a sectional view of the forward part of a torpedo embodying my invention.

Fig. 3 is a view similar to Fig. 2 of a modified form of the invention.

Fig. 4 is a similar view of another modification.

Fig. 5 is a section on line x—x of Fig. 4, and

Figs. 6 and 7 are views of a modified form of nose for the torpedo.

Fig. 8 is a view of a gun shell, rifle shell, cartridge, projectile or torpedo nose or pointer, with a plurality of bombs or explosives, as shown in drawings and more fully described in other views in the drawings and other places in this specification.

In the drawings forming a part of this specification, like numerals of reference indicate corresponding parts in the several figures of the drawings:

A torpedo of the customary shape is indicated by 1 provided with a long slender pointed rod or firing pin 2 projecting through a cap 3 on the front of the torpedo body, said cap 3 being kerfed so that the cap will break up upon shock. A supplemental striking pin 4 projects through the forward end of the torpedo 1 and is connected to a lever 5 which operates a firing pin 6 against the action of a spring 6^a for exploding a cap 7 to fire the torpedo charge.

A gun 8 is embedded and mounted in the bow of the torpedo 1, said gun being provided with a breech block 9 behind the cartridge S. The shell S is provided with the long slender rod 2 which extends through the shell and projectile, held therein for slight longitudinal movement and which projects through the cap 3.

The torpedo is provided with diving wings 10 mounted on short shafts 11 provided with cranks connected to pitman 12 attached to a crank disk 13 driven from a motor 14, from a storage battery 15 as shown.

A timing mechanism 16 controls the current for firing the gun through a conduit and insulated conduit 18 to the cap 1^a.

The torpedo may be made to dive at certain predetermined times and also to fire the gun off just before the torpedo is to strike, which shot hits the ship or object and opens the way in the ship or object and also opens the way in the water for the better striking of said torpedo. It will also be apparent that the charge within the cartridge may be exploded upon engagement of the rod 2 with the target, thereby causing the discharge of the projectile held within the cartridge S, the projectile carrying the rod or firing pin with it.

The cap 3 will break up when the gun is fired letting the shell out easily.

In Fig. 3, I have the rod 2^a hinged at 20, and hollow to accommodate a holding rod 21, connected by a pitman 22, with a crank disk 23 driven by a motor 24 controlled by a timing device 25 from a storage battery 26. Upon proper timing, the rod may be withdrawn when desired, thereby causing the rod 2^a to incline downward and cause the torpedo to dive as desired.

Figs. 6 and 7 show another method of

controlling the diving qualities of the torpedo.

The nose 2^e is provided with an adjustable hinge secured by a bolt 2^d and the angle of inclination of the forward part of the nose or projection 2^e may set as desired.

The adjustable hinge is preferably provided with a scale F showing the angle to set the nose, projection or pointer to make it dive, rise or turn around certain degrees per mile and to facilitate the setting of the nose or projection 2^e at the proper inclination. The nose or projection 2^e may be used on all the other figures instead of the nose or projection 2, 2^a and 2^b, and may be secured to the forward end of the gun barrel as shown in Figure 8, and Figures 1, 2, 3, and 4, or any suitable way desired.

In Figs. 4 and 5 a torpedo fitted with a magazine gun 8^a is shown, this gun being provided with a cylinder magazine 26, having gear teeth cut upon its periphery and meshing with a gear 27 upon a shaft 28, said shaft being provided with a pinion 29 upon its opposite end and a boxing 29^a.

The pinion 29 meshes with a mutilated gear 30 upon a shaft 31, and the shaft 31 is provided with strikers 32 to engage a lug 33 on the firing pin 34, said firing pin having associated therewith a main spring 35.

The cylinder 26 is mounted upon trunnions 26^a and pockets 26^b to hold the firing charge or cartridge 26^c, the shells of which are provided with attenuated noses 26^d.

The point of the first shell extends through the cap 3 and forms the point of the gun and torpedo combined. In Figure 8, a nose or projection is shown at 2^b carrying bombs as indicated at P; a firing pin is shown at P^1; a spring holding the firing pin in position is indicated at P^2; a cap and fuse are shown at P^3; an explosive charge in the bombs is shown at P^4; the point closing the forward end of the gun barrel is indicated at 3 and this nose or projection carrying the explosive charges may be used on all of the other figures from 1 to 7 inclusive instead of on the nose or projection shown in said figures, and may also be used on the forward end of all projectiles and shells. The adjustable hinge, bolt 2^d, and scale F, shown in Figures 6 and 7, may also be used on this nose or projection 2^b.

The gun and torpedo combined may be driven in any suitable manner by any approved mechanism, preferably in the same well known way that all torpedoes are moved or driven. The shaft 31 is driven by a motor 32, controlled by a timer 33, from a suitable storage battery.

It is obvious that those skilled in the art may vary the details of the construction as well as the arrangement of parts without departing from the spirit of the invention and therefore I do not wish to be limited to the above disclosure except as may be required by the claims.

What I claim is:—

1. The combination of a torpedo, a gun carried thereby, a projectile and firing charge within the gun, time controlled means for igniting said charge, a second charge carried by the torpedo, a movable firing pin extending beyond the point of the torpedo, and means operable upon engagement of said pin with the target to ignite the second charge.

2. The combination of a torpedo, a gun carried thereby, a projectile and charge within the gun, a firing pin extending through said charge, projectile and beyond the point of the torpedo adapted when engaged against the target to ignite the charge, a second charge carried by the torpedo, a supplementary firing pin extending through the torpedo and beyond the point thereof, and means operable upon engagement of the supplementary firing pin with the target to ignite the second charge.

3. The combination of a torpedo, a gun barrel carried thereby, a projectile and charge within the gun, a firing pin extending through the projectile and beyond the point of a torpedo and adapted when engaging the target to ignite the charge, and auxiliary time control means for igniting said charge, a second charge carried by the torpedo, a supplementary firing pin extending through the torpedo and substantially parallel to the first firing pin, and means operable upon engagement of the second firing pin with the target to ignite the second charge.

4. A torpedo carrying a charge, a firing pin movably mounted therein and extending beyond the point thereof, a lever mounted within the torpedo and pivotally connected to the rear end of said firing pin, a percussion cap, and means pivotally connected to said lever and adapted to engage and ignite the percussion cap upon engagement of a firing pin with a target.

5. The combination of a torpedo, a gun carried thereby, a projectile and charge within the gun, a firing pin for igniting the charge extending through the projectile and carried thereby and beyond the point of a torpedo, the forward end of said firing pin being formed in relatively movable sections, and means for securing said sections against relative movement.

6. The combination of a torpedo, a gun barrel carried thereby, a projectile and firing charge within the gun, a firing pin divided adjacent one end into a pair of relative movable sections, the adjacent ends being enlarged and having their adjacent faces serrated, a bolt connecting said enlargements adapted when tightened to retain the sections in any position subsequent to adjust-

ment thereof, the rearmost section of the firing pin extending into the projectile and carried thereby and adapted to fire the charge when the opposite end of the firing pin is engaged against a target.

7. The combination of a torpedo, a gun carried thereby, a rotatably mounted barrel forming part of the gun, a projectile and firing charge mounted in one opening of the barrel, a slender rod carried by said projectile, extending through the barrel and gun and beyond the point of the projectile, said rod when engaged against the target adapted to ignite the charge and propel the projectile, a plurality of cartridges carried by the barrel, means for intermittently rotating said barrel, and means for successively discharging the cartridges.

8. The combination of a torpedo, a gun carried thereby, a revolving cartridge carrying barrel forming part of a gun, cartridges mounted in said barrel, a gear carried by said barrel, a second gear having its teeth mutilated at uniformly spaced points, means for transmitting motion between the second gear and the first gear to intermittently revolve the barrel, and means operable by rotation of the second gear for successively discharging the cartridges.

9. A torpedo having a gun barrel, a frangible cap closing the end thereof, a cartridge containing barrel rotatably mounted and carrying a number of cartridges, and means for rotating the barrel and for successively discharging the cartridges.

10. A power driven gun and torpedo combined with a long slim attenuated adjustable point made in a way to adjust the point to cause the gun and torpedo combined to dive, rise or turn as desired by adjusting said point, and means to automatically fire the gun and torpedo combined at a predetermined time.

11. A power driven gun and torpedo combined with a magazine and means to move the ammunition in the magazine in position to be fired through the barrel of the gun and torpedo combined and fire same from the gun and torpedo combined at a predetermined time.

12. A gun having a barrel, said gun being adapted to be operated as a torpedo, the forward end of said barrel being closed, a projection secured to said closed forward end and said projection extending axially and in alinement with the center of the barrel of said gun and means to adjust said projection in a way to cause said gun to dive, rise or turn.

13. A gun having a barrel, said gun being adapted to be operated as a torpedo, the forward end of said barrel being closed, a projection secured to said closed forward end and said projection extending axially and in alinement with the center of the barrel of said gun, said projection carrying an explosive charge, and means to ignite said explosive charge carried by said projection.

14. A gun having a barrel, said gun adapted to be operated as a torpedo, the forward end of said barrel being closed, a projection secured to said closed forward end, said projection extending axially and carrying an explosive charge and means to ignite said explosive charge carried by said projection.

15. A gun having a barrel, said gun adapted to be operated as a torpedo, the forward end of said barrel being closed, a projection secured to said closed forward end, said projection extending axially and carrying an explosive charge, means to ignite said explosive charge carried by said projection and means to fire said gun.

16. A gun having a barrel, the forward end of said barrel being closed, a projection carrying an explosive charge secured to said closed forward end extending axially, means to ignite said explosive charge carried by said projection and means to fire said gun.

17. A gun having a barrel, the forward end of said barrel being closed, a projection carrying a plurality of explosive charges secured to said closed forward end extending axially, and means to ignite said plurality of explosive charges carried by said projection.

18. A gun having a barrel, said gun being adapted to be operated as a torpedo, the forward end of said barrel being closed, a projection secured to said closed forward end, said projection extending straight forward from the center of said closed forward end of the gun barrel and means to adjust said projection in a way to cause said gun to dive, rise or turn at certain degrees per mile.

19. A gun having a barrel, said gun being adapted to be operated as a torpedo, the forward end of said barrel being closed, a projection secured to said closed forward end, said projection extending straight forward from the center of said closed forward end of the gun barrel and a scale providing means to denote certain degrees per mile said gun may dive, rise or turn by adjusting said projection at an angle.

20. A gun operated on water, said gun having a barrel, the forward end of said barrel being closed, a projection secured to said closed forward end, said projection extending straight forward from the center of said closed forward end of the gun barrel and means to set said projection at an angle to cause said gun to dive, rise or turn.

21. A gun operated on water, said gun having a barrel, the forward end of said barrel being closed, a projection secured to said closed forward end, said projection extending straight forward from the center

of said closed forward end of the gun barrel and means to set said projection at an angle to cause said gun to dive, rise or turn at certain degrees per mile.

22. A gun operated on water, said gun having a barrel, the forward end of said barrel being closed, a projection secured to said closed forward end, said projection extending straight forward from the center of said closed forward end and means to set said projection at an angle to cause said gun to dive, rise or turn.

23. A gun operated on water, said gun having a projection secured to the forward end of the barrel of said gun, said projection extending straight forward from the center of said forward end and means to set said projection at an angle to cause said gun to dive, raise or turn at certain degrees per mile.

24. A gun operated on water and means to cause said gun to dive, rise or turn by operating means on the forward end of said gun.

25. A gun operated on water and means to cause said gun to dive, rise or turn at certain degrees per mile, by operating a projection on the forward end of said gun.

26. A gun and torpedo combined operated on water, a projection carrying a plurality of explosive charges with the rear end of said projection secured to the forward end of the gun and torpedo combined, and the remainder of said projection extending straight forward from said forward end of the gun and torpedo combined.

27. A gun and torpedo combined moved on water, a projection carrying an explosive charge with the rear end of said projection secured to the forward end of the gun and torpedo combined and the remainder of said projection extending straight forward from said forward end.

28. A gun and torpedo combined having a projection carrying an explosive charge, the rear end of said projection secured to the forward end of the gun and torpedo combined and the remainder of said projection extending straight forward from said forward end, and means to set said projection at a suitable angle to cause said gun and torpedo combined to dive, rise and turn at certain degrees per mile.

29. A gun and torpedo combined having a projection carrying a plurality of explosive charges, the rear end of said projection secured to the forward end of the gun and torpedo combined and the remainder of said projection extending straight forward from said forward end, means to move the gun and torpedo combined on water, and means to set said projection at a suitable angle to cause said gun and torpedo combined to dive, rise and turn at certain degrees per mile.

30. A gun and torpedo combined carrying a projection on its nose, an explosive charge secured in said projection, a contact firing pin and percussion-cap secured in the forward part of said projection, and means to set said projection at a suitable angle to cause said gun and torpedo combined to dive, rise and turn.

31. A gun and torpedo combined having a projection extending straight forward from its forward end, said projection carrying a plurality of explosive charges, a contact firing pin and percussion-cap secured in the forward part of said projection, and means to set said projection at a suitable angle to cause said gun and torpedo combined to dive, rise and turn while being moved on water.

32. A gun and torpedo combined carrying on its front an explosive charge and a firing device adapted to explode the charge in front of the gun and torpedo combined and then explode a charge in the gun and torpedo combined.

33. A gun and torpedo combined having an extension on its nose carrying a series of explosive charges and means for exploding the series of charges.

34. A gun and torpedo combined, a projection adapted to be secured in the nose of the gun and torpedo combined, said projection having cavities adapted to hold explosive charges and means for exploding the charges.

35. A gun and torpedo combined having a part for holding and exploding a charge in front of the gun and torpedo combined, and having a part for holding a charge within the gun and torpedo combined, and means for communicating between the two parts.

36. A gun and torpedo combined carrying an explosive charge in front of the gun and torpedo combined, and an explosive charge within the gun and torpedo combined, means to ignite the explosive charge in front of the gun and torpedo combined and means to ignite the explosive charge in the gun and torpedo combined.

37. A gun and torpedo combined, having means on its front for carrying an explosive charge communicating with a charge in the gun and torpedo combined to explode it.

38. A gun and torpedo combined having means on its front for carrying an explosive charge communicating with a charge in the gun and torpedo combined to explode it, and means to set said means at an angle to direct the course of the gun and torpedo combined.

39. A gun and torpedo combined having a projection on its nose carrying a series of explosive charges, means for exploding the series of charges, and means to set said

projection at a suitable angle to direct the course of said gun and torpedo combined.

40. A torpedo having a projection on its nose carrying a series of explosive charges, means for exploding the series of charges, and means to set said projection at a suitable angle to direct the course of said torpedo.

41. A gun and torpedo combined having a projection extending out straight forward from the center of its forward end carrying a plurality of explosive charges in said projection, means for exploding the plurality of explosive charges, and means to set said projection at a suitable angle to direct the course of said gun and torpedo combined.

42. A torpedo having a projection extending out straight forward from the center of its forward end carrying a plurality of explosive charges in said projection, means for exploding the plurality of explosive charges, and means to set said projection at a suitable angle to direct the course of said torpedo.

43. A gun and torpedo combined having a projection extending out straight forward from the center of its forward end carrying an explosive charge in said projection, means for exploding said explosive charge, and means to set said projection at a suitable angle to direct the course of said gun and torpedo combined.

44. A torpedo having a projection extending out from the center of its forward end carrying an explosive charge in said projection, means for exploding the explosive charge, and means to set said projection at a suitable angle to direct the course of said torpedo.

45. A torpedo having a projection extending out from the center of its forward end carrying an explosive charge in said projection, means for exploding the explosive charge, and means to set said projection at a suitable angle to cause the torpedo to dive, rise and turn at certain degrees per mile while said torpedo is being operated on water.

46. A torpedo having a projection extending out from the center of its forward end carrying a plurality of explosive charges in said projection, means for exploding the plurality of explosive charges, and means to set said projection at a suitable angle to cause the torpedo to dive, rise and turn at certain degrees per mile while said torpedo is being operated on water.

In testimony whereof, I have hereunto set my hand.

ROBERT LEE WRIGHT.