No. 730,182. PATENTED JUNE 2, 1903.

C. E. WENZEL.

DETONATING TOY GUNBOAT.

APPLICATION FILED MAR. 12, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

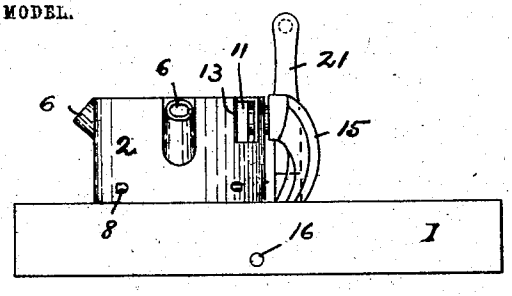


Fig. 1.

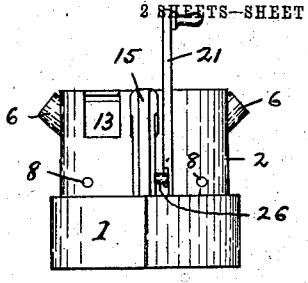


Fig. 2.

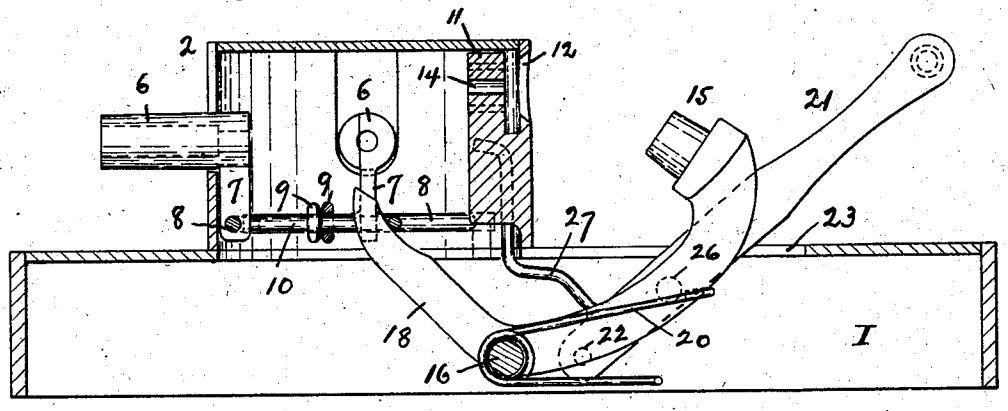


Fig. 3.

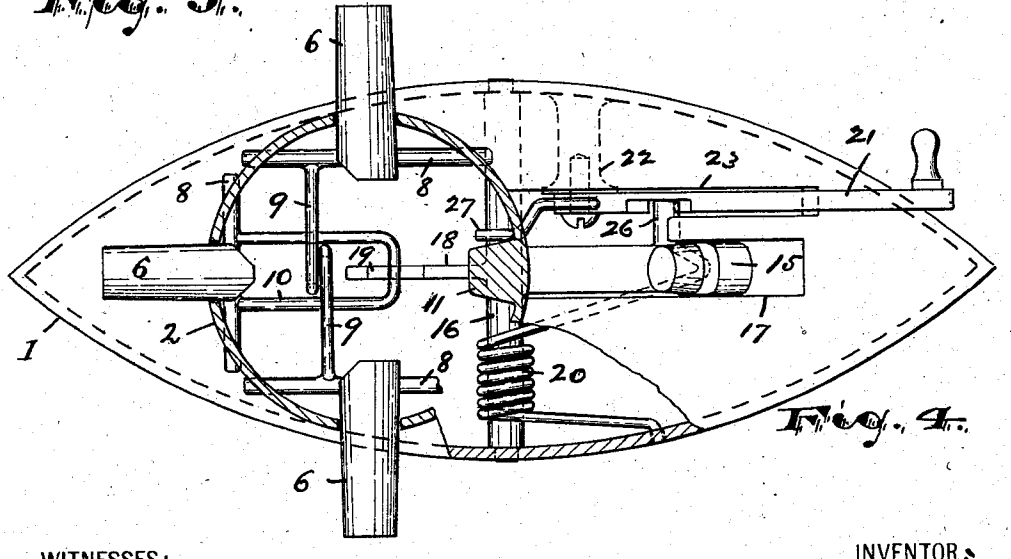


Fig. 4.

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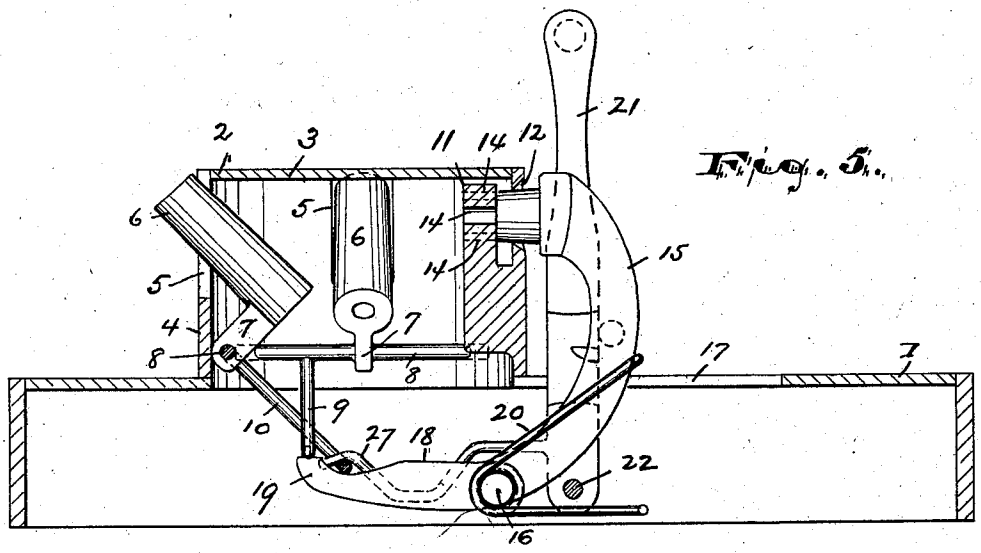


Fig. 5.

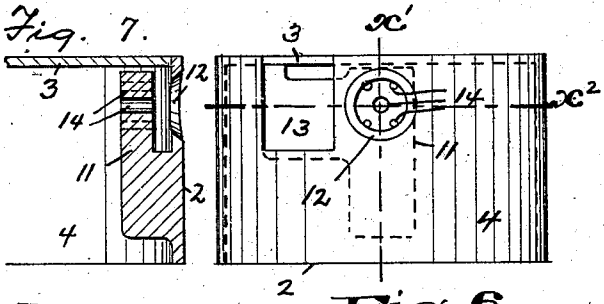


Fig. 6.

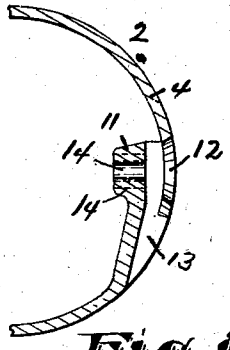


Fig. 8.

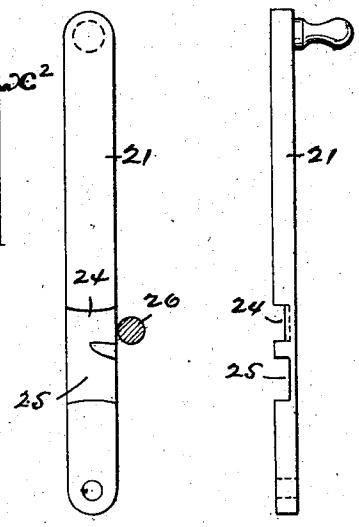


Fig. 9.

Fig. 10.

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No. 730,182. Patented June 2, 1903.

UNITED STATES PATENT OFFICE.

CARL E. WENZEL, OF NEWARK, NEW JERSEY.

DETONATING TOY GUNBOAT.

SPECIFICATION forming part of Letters Patent No. 730,182, dated June 2, 1903.

Application filed March 12, 1903. Serial No. 147,372. (No model.)

To all whom it may concern:

Be it known that I, CARL E. WENZEL, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented and produced new and original Improvements in Detonating Toy Gunboats; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

The objects of this invention are to provide a detonating toy of novel and pleasing construction, to simulate the effect of disappearing guns in a turret, to cause the smoke from the explosion of a single cap or pellet of fulminate to issue from a plurality of guns, to obtain a simple construction which can be cheaply manufactured, and to secure other advantages and results, some of which may be referred to hereinafter in connection with the description of the working parts.

The invention consists in the improved detonating toy gunboat and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like numerals of reference indicate corresponding parts in each of the several figures, Figure 1 is a side elevation of my improved detonating toy gunboat, and Fig. 2 is a stern view of the same. Fig. 3 is a vertical central section taken longitudinally of the device, the parts being shown in discharging position. Fig. 4 is a plan, the roof of the turret being removed. Fig. 5 is a view similar to Fig. 3, the parts being shown in normal or idle position. Fig. 6 is a rear view of the turret; and Figs. 7 and 8 are vertical and horizontal sections thereof, taken on lines x' and x^2, respectively; and Figs. 9 and 10 illustrate in side and edge view, respectively, a certain discharging-lever.

In said drawings, 1 indicates the body portion of my improved device, hollow to receive the working parts hereinafter described and elliptical in plan or of any other shape suitable to be mounted upon a wooden hull (not shown) to float the same. On said body, near its forward end, is mounted a cylindrical turret or chamber 2, closed at its top 3 and having at its sides 4 apertures 5 5 to receive the guns 6. Said guns 6 are each tubular from end to end and provided at its inner end with a downwardly-extending arm 7, fixed upon a shaft 8, journaled horizontally in the walls of the turret along the line of a chord. Of said shafts 8 the two at the opposite sides of the boat have looped arms 9 9, extending inwardly toward each other parallel to the guns 6, but opposite in direction, and the loops being arranged in vertical plane. The pivotal shaft 8 of the forward gun is provided with a similarly-arranged arm 10, having its loop horizontally disposed, and which extends rearward through the two looped arms 9 9 described, so that as the arm 10 is raised or lowered it will carry the other arms 9 with it. Normally the arms 10 and 9 9 are depressed, as will be hereinafter described, and thus the guns 6 are withdrawn into the turret, as shown in Figs. 1, 2, and 6 more particularly; but at the moment of firing the said arms are thrown upward into horizontal position, and thus project the guns horizontally, as shown in Figs. 3 and 4 especially.

For firing one of the usual fulminating caps an anvil 11 is stationed within the turret 2 closely adjacent to the rear wall, said wall having an aperture 12, through which a hammer may strike onto said anvil. At one side of said aperture 12 the wall of the turret is slotted, as at 13, in the line of a chord, so that a cap may be inserted between the anvil and wall of the turret, as will be understood. The anvil 10 is perforated, as at 14, so that when a cap is exploded the smoke therefrom will be driven into the chamber-turret, and, furthermore, the inner ends of the cannon being near said anvil a considerable portion of the smoke will pass through the guns and appear at the muzzles thereof, thus simulating an actual discharge. Back of the turret is a hammer 15, pivoted upon a transverse rocking shaft 16 transversely of the body portion 1 and working in a slot 17 in the top of said body. From the rocking shaft 16 or lower end of the hammer 15 an arm 18 extends forwardly beneath the arm 10 of the forward gun 6, before described, said hammer-arm 18

being upcurved at its end 19 to engage said arm 10 and lift the same as the hammer is drawn backward, all as will be understood upon comparison of Figs. 3 and 5 of the drawings. A spring 20 of any suitable construction serves to hold the hammer 15 normally against its anvil. For operating the said hammer 15 to effect a discharge of caps upon the anvil 14 any suitable means common to the art may be employed. I prefer, however, to use the rapid-fire lever shown and described in my prior application, Serial No. 128,364, filed October 22, 1902. This lever 21 is pivoted in the body portion of the device, as at 22, and extends upward through a slot 23 in the top thereof, being adapted to swing in a plane parallel with and adjacent to the plane of the hammer 15. At its side next said hammer 15 the lever 21 has upper and lower slots 24 25, adapted to coöperate with a pin 26 on the side of the hammer, all as described in said prior application. When in position for firing, the said lever 21 lies in front of the pin 26, so that as retracted it carries the hammer with it until said pin slips through the lower slot 25 and discharges the device. The lever is then swung forward, and its beveled upper slot 24 crowds past the pin 26. Preferably the lower end of this discharging-lever 21 carries an arm 27, which extends forwardly above the arm 10 of the forward gun 6 and is adapted to forcibly press the same downward as the lever is swung forward, as above briefly described. Thus the guns are positively retracted after a discharge.

Obviously various modifications of construction from that above described in detail may be made without departing from the spirit and scope of my invention—as, for instance, in the precise manner of connecting the guns and hammer—and I therefore do not wish to be understood as limiting myself by the positive descriptive terms employed except as the state of the art may require.

Having thus described the invention, what I claim as new is—

1. The combination with a body portion having a turret, of pivoted guns adapted to project from said turret, an anvil at the rear of said turret, and firing means at the rear of said anvil, connected to said guns.

2. The combination with a body portion having an apertured turret, of guns pivoted within said turret and adapted to project from the apertures thereof, an anvil at the rear of the turret, a pivoted hammer adapted to engage said anvil, and means connecting said guns to said hammer.

3. The combination with a turret, of guns pivoted within said turret, arms extending from said guns into close proximity with one another, an anvil, and a percussion-hammer adapted to engage said arms.

4. The combination of a turret, horizontal shafts arranged across the interior of said turret adjacent to its walls, bell-crank levers on said shafts, guns mounted upon the upper arms of said levers, and means for simultaneously swinging the other arms.

5. The combination of a turret, horizontal shafts arranged across the interior of said turret adjacent to its walls, bell-crank levers on said shafts, guns mounted upon the upper arms of said levers, means connecting the other arms of said levers, an anvil, and a hammer adapted to strike upon said anvil and also engage said connected arms of the levers.

6. The combination with an apertured turret, of guns projecting from said apertures, lateral arms extending downward from the inner ends of said guns and being each pivoted upon a horizontal rocking shaft, said shafts, looped arms upon the shafts at opposite sides of the turret extending toward each other, an arm upon the shaft of another gun extending through said looped arms, a hammer at the rear of the turret, and an extension upon said hammer engaging said last-mentioned arm.

7. The combination of a turret 2, horizontal shafts arranged across opposite sides of the interior of said turret adjacent to its walls, said shafts being parallel, a third shaft similarly mounted in the turret at right angles to said parallel shafts, guns mounted on all said shafts, looped arms projecting from said parallel shafts toward each other in planes at right angles to said shafts, a similarly-looped arm projecting from the third shaft in the plane thereof and passing through the first two arms, and percussion means, adapted to engage said arm of the third shaft.

8. In a detonating toy, the combination with a casing having apertured walls, of guns adapted to project from said apertures and each having a tubular passage open from end to end, an anvil upon one side wall of said turret having perforations opening into said turret, and means for discharging fulminating caps upon said anvil.

9. The combination with a turret, of guns adapted to project from said turret and having their inner ends in close proximity, and each presenting a tubular passage open from end to end, an anvil within the said turret adjacent to the inner ends of said guns, and means for discharging fulminating caps upon said anvil.

10. The combination of the turret 2, having an aperture 12, an anvil within said turret in alinement with said aperture, the walls of the turret being slotted in alinement with the space between said anvil and aperture to permit the insertion of caps, a hammer adapted to strike through said apertures onto the anvil, and tubular guns projecting from said turret to discharge the smoke.

11. The combination of a body portion providing a closed chamber, an anvil within said chamber, percussion means for exploding fulminating caps on said anvil, and tubes projecting from said chamber to discharge the smoke from said caps.

12. The combination of a turret having an apertured wall, a perforated anvil within said turret adjacent to said wall and forming therewith a seat for caps, the walls of the turret being slotted to afford access to said seat, a percussion-hammer adapted to strike through said aperture onto the anvil, and means for discharging the smoke from the interior of said turret.

13. The combination with a turret, of guns adapted to project from said turret, bell-crank levers each supporting at one end a gun and being connected at their opposite ends, of a hammer at the rear of the turret, a spring normally throwing said hammer forward, an extension on said hammer engaging the said bell-crank levers, and tripping means for discharging said hammer.

14. The combination with a turret, of guns adapted to project from said turret, bell-crank levers each supporting at one end a gun, and being connected at their opposite ends, of a hammer at the rear of the turret, a spring normally throwing said hammer forward, an extension on said hammer engaging the said bell-crank levers, a tripping-lever for retracting said hammer, and an arm upon said tripping-lever adapted to engage the bell-crank levers from the opposite side from said hammer extension.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of March, 1903.

CARL E. WENZEL.

Witnesses:
C. B. PITNEY,
RUSSELL M. EVERETT.