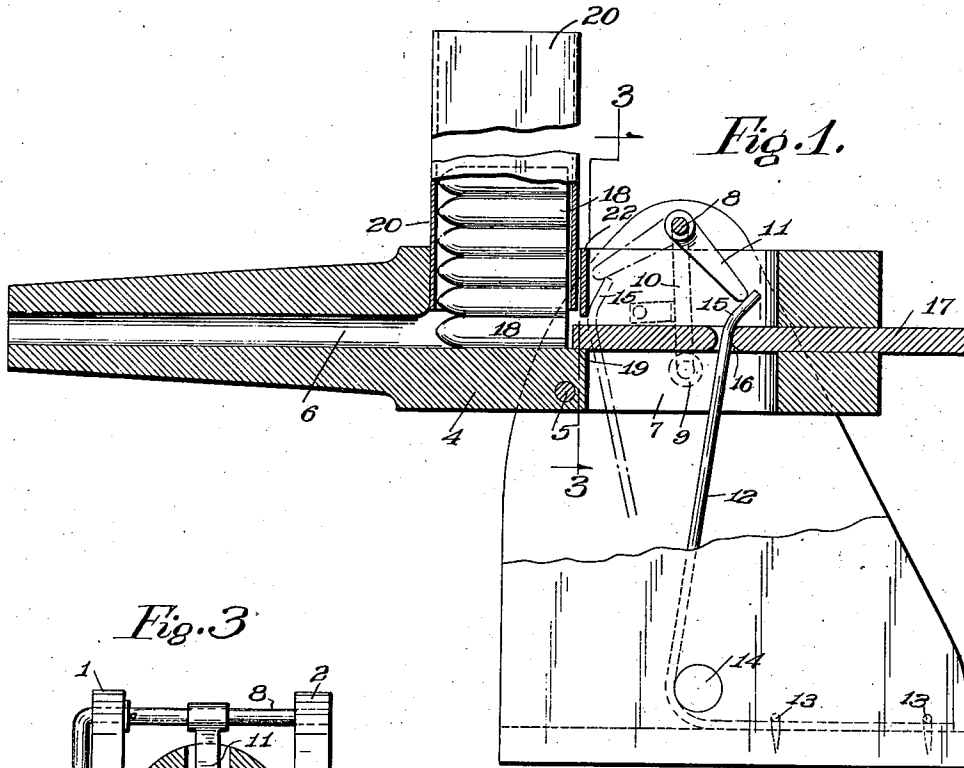
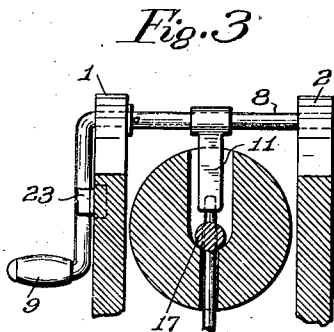
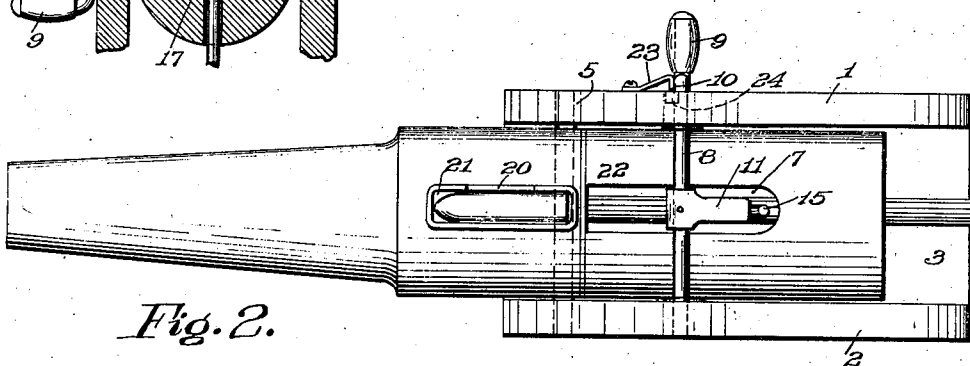


G. C. LASARES.
TOY CANNON.
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Inventor:
Geo. C. Lasares
By Harry W. Bowen.
Attorney

UNITED STATES PATENT OFFICE.

GEORGE C. LASARES, OF SPRINGFIELD, MASSACHUSETTS.

TOY CANNON.

1,218,093.

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To all whom it may concern:

Be it known that I, GEORGE C. LASARES, a citizen of the United States of America, residing in the city of Springfield, county of Hampden, and State of Massachusetts, have invented certain new and useful Improvements in Toy Cannons, of which the following is a specification.

This invention relates to improvements in toy cannons, or toy guns, as they are sometimes called, and comprises in general a supporting base member in which the barrel of the gun is pivotally supported for the purpose of conveniently elevating and depressing the barrel for the purpose of varying the aim. Communicating with the bore of the barrel is a magazine adapted to receive cylindrical shaped projectiles which are piled one above the other to permit the lowermost one to be discharged from the barrel when the gun is operated.

The operating devices consist, in general, of a shaft mounted in the base member and adapted for continuous rotation, if desired. This shaft extends transversely of the barrel and carries a projection which rotates in an opening in the rear portion of the barrel. The propelling means comprises a spring one end of which is fixed and the other end passing through a slide which is adapted to be engaged by the projection on the continuously rotatable shaft whereby, as the projection passes or frees itself from the end of the spring the same is released, causing the slide to engage the lowermost projectile for expelling the same. I am aware that, broadly, this particular type of toy is not new but I am not aware that the construction herein shown and described and which will be specifically pointed out in the claims is old.

Referring to the drawings:

Figure 1 is a longitudinal view of the gun, partially in section, the section being taken on the vertical plane passing through the axis of the barrel and illustrating the operative mechanism;

Fig. 2 is a top plan view of Fig. 1 showing clearly the opening through the rear end portion of the barrel in which the projection of the operating shaft rotates, also showing the slide with which the spring actuating member cooperates; and

Fig. 3 is a view on the line 3—3 of Fig. 1.

Referring to the drawings in detail: a

support is provided having the upwardly extending parallel members 1 and 2 which are connected together at the bottom by means of the plate or base-piece 3. 4 designates the barrel of the toy cannon which is pivotally mounted in the parallel members 1 and 2 by means of the pin 5 for permitting the barrel to be raised and lowered in a vertical plane for the purpose of varying the direction or aim during the operation of the toy. The bore of the barrel is designated at 6 and terminates in the opening 7. This opening 7 is cut vertically through the barrel at the rear portion thereof as clearly shown in Fig. 1. Rotatably mounted in the members 1 and 2 is a shaft 8 with which the operating handle 9 is integrally connected by means of the crank portion 10. This shaft 8 carries a projection 11 which is located in the upper part of the opening 7. The projection 11 is designed to engage the upper curved portion of one limb of an L-shaped propelling spring 12, one end of which is securely fastened to the base 3 as indicated by the staples 13, the elbow or bent portion of the spring passing around and under the fixed pin 14 while its upwardly projecting rearwardly bent portion 15 passes through an opening 16 in a reciprocable slide or bolt 17. The opening 16, at its ends, is curved in order to provide an anti-friction device between the wire 12 and the slide. This slide is designed for engaging the lowermost one of the pile of projectiles when the same is to be expelled. The forward portion of the slide when moved to its rearmost position normally rests on the rear portion of the bore 6, as indicated at 19. 20 designates a magazine holder which is inserted in an opening 21 in the upper side of the barrel, the lower end of the holder terminates at the bore 6. This holder may consist of a light metallic open sided tube made of sheet iron or other metal and sprung into the opening 21. Located in the upper portion of the opening 7 and at the forward edge thereof is a metallic wear plate 22, which is secured to the barrel in any suitable way. In order to limit the direction of rotation of the handle 9 a shouldered spring stop 23 is attached to the outside of the upwardly extending member 1 which is bent so that its inwardly extending end enters a recess 24 in the member 1 permitting the crank 10 to snap by in one direction but

preventing its rotation in the opposite direction, or, in other words, the handle can be rotated clockwise but not contraclockwise.

Referring now to the operation of the device, it being understood that the holder 20 is filled with projectiles 18, the shaft 8 is operated by the handle 9 causing the projection 11 to engage the upwardly projecting curved end 15 of the L-shaped spring 12, the spring is assumed to be in the dotted line position shown in Fig. 1. As the handle is rotated the limb 12 of the spring is bent rearwardly into the position shown in full lines, at the same time drawing the slide 7 rearwardly. This operation permits the lowermost one of the projectiles 18 to fall down into the bore 6 of the barrel. As the projection 11 passes from the curved end 15 the spring is suddenly released and instantly assumes the dotted line position carrying with it the slide 17 which in turn engages the lowermost projectile 18 causing the same to be violently expelled from the barrel. It is understood that when the slide crosses the lower end of the magazine 20 it serves to hold back the pile of projectiles above until the slide is again withdrawn allowing the lowermost one to take its position in the bore 6 in place of the one previously expelled. It is understood that continuous rotation of the handle 9 results in repeated discharge of the projectiles in rapid order. The spring 12 is prevented from wearing the forward end of the opening 7 by means of the metallic wear plate 22 which receives the blow of the spring, as shown in Fig. 1. It should be stated that the spring 12 normally retains the slide 17 in a forward position extending across the lower end of the magazine 20 thereby preventing the projectiles above from being lost or dropping out of the gun when not in use. The opening 7 in the rear part of the barrel 4 is made wider at the top portion in order to accommodate the projection 11 but the lower portion of the opening 7 is formed as a slot and only wide enough to receive the spring 12.

What I claim is:—

1. In a device of the kind described, the combination with the supporting base, a barrel, said barrel having an opening in the rear portion thereof and opening into the bore of the barrel, a slide adapted for reciprocation in said opening, an L-shaped spring having one end secured to the lower part of the base and passing around and below a fixed member, its other arm projecting upwardly through an opening in the slide the ends of which are curved, a shaft mounted for rotation in the base and carrying a projection, said projection being designed to engage the upper or free end of the spring for the purpose of placing the same under stress, and for releasing the spring, the opening in the barrel permitting

the spring to drive the slide forwardly into the bore of the barrel, and said barrel having a magazine containing projectiles to be discharged when the slide is released.

2. In a device of the kind described, comprising in combination with the base member thereof which is formed with upwardly projecting side plates spaced from each other, a barrel pivotally mounted between the plates and adapted for adjustment in a vertical plane, the rear portion of the barrel having an opening extending through the same and connecting with the bore of the barrel, means located in the opening for propelling the lowermost projectile, and means for operating said means, comprising an L-shaped spring one end of which is secured to the base portion and the angle part of the spring engaging a fixed stop, the other limb of the spring operatively connected to the said propelling means and means for engaging the propelling means for discharging the projectiles in a continuous manner, as described.

3. In a device of the kind described the combination with a supporting base, of a barrel pivotally connected to the base and having a projectile receiving bore therein which terminates in an opening in the rear part of the barrel, a magazine for supporting a plurality of projectiles, the lower end of the magazine leading into said bore, a reciprocable device located in the opening in the rear part of the barrel for engaging the lowermost projectile, said device having an opening therethrough, an L-shaped spring secured to the supporting base and having one end or limb engaging and projecting through the opening in the reciprocable device, means engaging the projecting end of the spring for retracting the slide and for placing the spring under stress prior to its release for propelling a projectile.

4. In a toy cannon of the magazine type, the combination with a supporting base, a barrel pivotally connected thereto, a reciprocable slide for engaging and propelling the lowermost projectile, a spring for driving the slide forward, a shaft adapted for continuous rotation for placing the spring under stress and for permitting its release at a predetermined point in its travel for operating the slide, said spring having an anti-friction connection with the slide and a curved end with which the engaging means of the shaft coöperates to effect the compression and release of the said spring.

5. In a toy cannon of the magazine type, the combination with a supporting base, a barrel pivotally connected thereto, a reciprocable slide for engaging and propelling the lowermost projectile, a spring for driving the slide forward, a shaft adapted for continuous rotation for placing the spring under stress and for permitting its release at a

predetermined point in its travel for operating the slide, said spring having an anti-friction connection with the slide and a curved end with which the engaging means of the shaft coöperates to effect the compression and release of the said spring, and means for preventing the reverse rotation of the shaft.

6. A device of the kind described comprising a supporting part, a bored out barrel connected thereto, a projectile holding magazine communicating with the bore of the barrel, the rear part of the barrel having an opening, a projectile engaging slide mounted for reciprocation in and across the opening, a spring having connection with the slide for propelling the slide, said spring extending upward from a point below the slide and through a narrow slot in the barrel, and continuously rotated means for directly engaging the spring above the slide for placing the spring under stress and for permitting its release when a projectile is to be expelled from the barrel.

7. A toy cannon comprising in combination, a barrel, a magazine communicating with the bore of the barrel, the barrel having an opening which is adjacent the rear side of the magazine, a slide in the opening for engaging the projectiles in the bore, an L-shaped propelling spring attached to the slide, and rotatable means in the opening designed to engage the propelling spring and to permit its release when the slide is to be operated for expelling a projectile.

8. A device of the kind described, comprising in combination with a barrel having a bored out portion, means for supplying projectiles to the bored out portion, a projectile propelling member, an L-shaped spring operatively connected to said member, and means comprising a continuously rotatable member located in an opening in the barrel for intermittently engaging and disengaging the free end of the spring to effect the rapid expulsion of the projectiles in succession.

GEORGE C. LASARES.