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FORT DISAPPEARING GUN.

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1,422,296. Patented July 11, 1922.

Fig. 1.

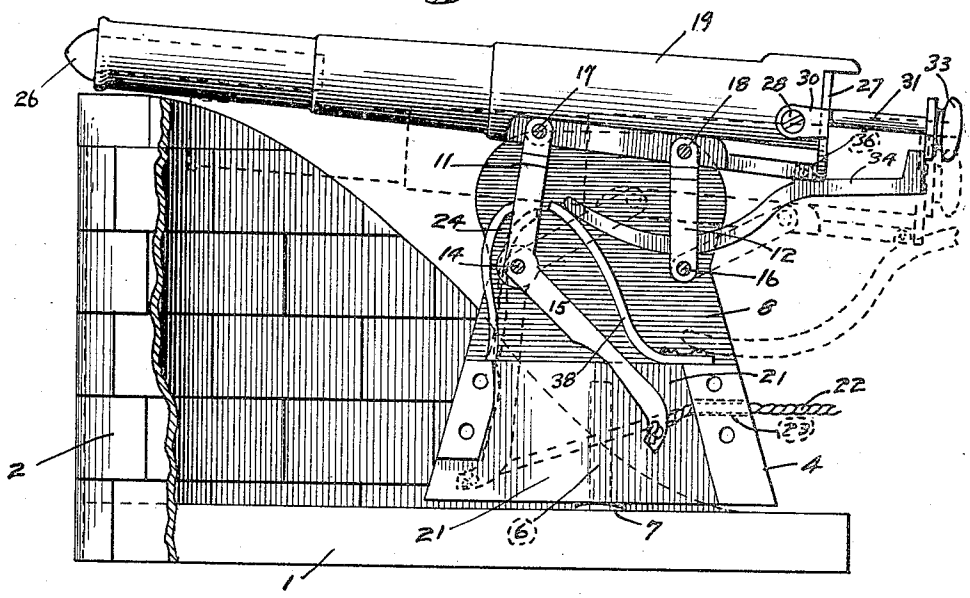
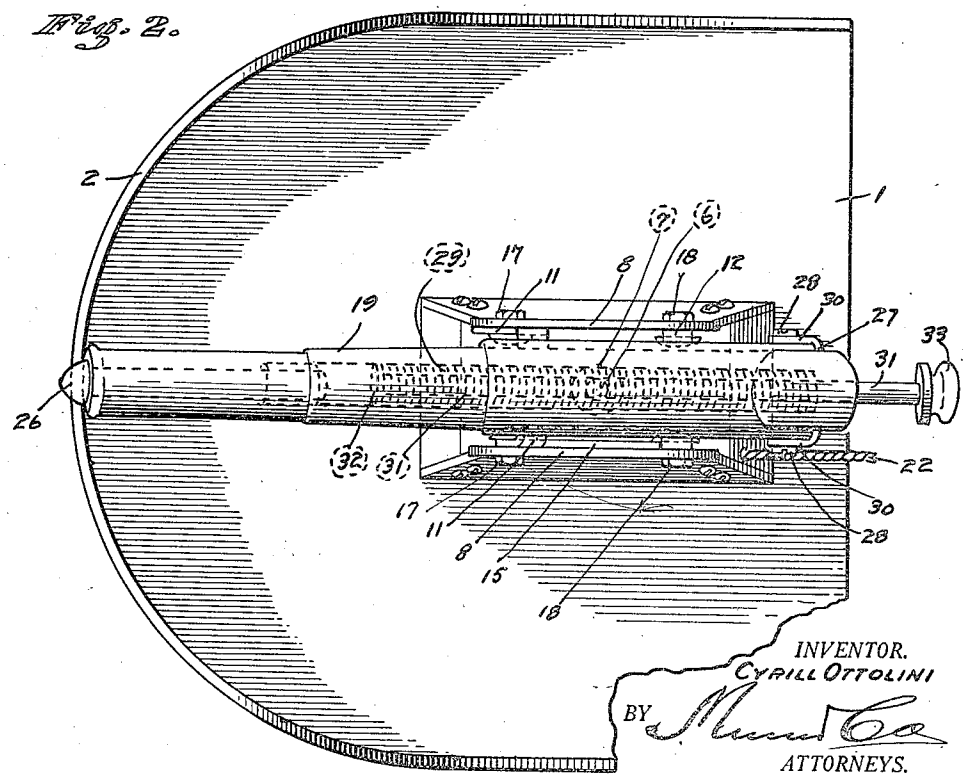


Fig. 2.



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FORT DISAPPEARING GUN.

1,422,296. Specification of Letters Patent. Patented July 11, 1922.

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To all whom it may concern:

Be it known that I, CYRILL OTTOLINI, a citizen of the United States, and resident of Calistoga, county of Napa, and State of California, have invented a new and useful Fort Disappearing Gun, of which the following is a specification.

The present invention relates to improvements in toy guns and its object is to provide a stationary disappearing gun that is simple in construction, substantial, that will throw a projectile with considerable force and allows aim to be taken with a high degree of accuracy. Other objects and advantages will appear as the description proceeds.

The preferred form of my disappearing gun is illustrated in the accompanying drawing, but I wish to have it understood that slight changes and modifications may be made without departing from the spirit of the invention. In the drawing, Figure 1 represents a side elevation of my disappearing gun, the full lines showing the gun in its active position, just ready to shoot, while the dotted lines indicate its position in repose; and Figure 2 represents a top plan view of the gun.

Referring to the drawing in detail, it will be seen that I provide a platform (1) having a semi-circular front and a square rear end as a foundation for my disappearing gun. The sides and the semi-circular front portion of the platform are provided with a shield (2), which is preferably made of card board and painted to imitate a brick wall. It rises from the platform sufficiently high to cover the gun when the same is in a position of repose.

The base of the gun is preferably a wooden block (4) rotatably mounted on a vertical post (6) rising from the platform having a collar (7) around its bottom portion so as to prevent the block (4) from coming in immediate contact with the platform and to thereby insure freedom of rotation for the same. The block has a rectangular bottom and a rectangular top, and sides preferably slanting inwardly from the bottom to the top. The block supports on its sides metal guide plates (8) which are longitudinally co-extensive with the block and rise above the same to provide bearings for the gun carriage. It will be noted that in Figure 1 the plate on the near side is removed to expose the carriage mechanism.

The latter comprises two pairs of links (11) and (12), the front pair (11) being slightly longer than the rear pair (12). The lower ends of these links are pivotally secured in the guide plates, as at (14) and (16), the front pair slightly lower than the rear pair, while the upper ends are pivotally secured to the barrel (19) of the gun, as shown at (17) and (18). The length of the links is preferably so adjusted that when in its firing position the front of the barrel slants upwardly, while in loading position the barrel is substantially level. One of the front links (11) has an extension (15) over the pivot (14) extending into a recess (21) in the side of the block (4) and to this extension is secured, at its lowermost end, a string (22), which is carried rearwardly from there and extends through a hole (23) in the block (4) sufficiently rearward to be within convenient reach of the operator. It will be readily understood that by pulling on the string the operator can lift the barrel of the gun from the loading position to the firing position. In making this move the other lever (11) comes in contact with and sets a spring (24), one end of which is embedded in the block (4), and the latter spring causes the barrel to return to its firing position when the operator ceases to pull the string.

The barrel (19) is tubular in form and its front end is adapted to receive the cylindrical projectile (26). The rear end of the barrel is closed by the metal plate (27) having two perforated lugs (30) adapted to be secured to the barrel by means of the screws (28). The projectile is thrown forward by the action of the spring (29) within the rear portion of the tube guided on a stem (31) extending through the plate covering the rear end of the barrel and having a collar (32) at its front end adapted to bear against the spring and to come in violent contact with the projectile when the spring is released, while the other end of the stem is provided with a head (33) presenting a rectangular forward edge adapted to engage the rear end of a trigger (34) pivoted in the rear portion of the barrel as shown at (36). The rear end of the trigger is for this purpose provided with an upwardly extending

lug (37), while its front edge is curved and adapted to come in contact with the metal leaf (38) secured to the base and extending upwardly from the same, when the barrel of the gun approaches its firing position. The trigger and the metal leaf are arranged in such position that at the time the barrel reaches its firing position the metal leaf causes the rear end of the trigger to trip the head of the stem (31) and to thereby release the spring which throws the projectile forward.

The operation of the gun is easily understood. After the projectile has been inserted into the mouth of the barrel and the head of the stem (31) has been drawn back and engaged with the lug on the trigger (34), the operator pulls the string, thereby pulling the extension of the link (11) rearward and the upper end of the link forward and upward. This motion communicates itself to the other links (11) and (12) and causes the gun barrel (19) to jump forward and upward so that its mouth clears the shield. During this latter motion the curved front end of the trigger (34) comes in contact with the metal leaf (38) so that when the barrel reaches its foremost and uppermost position, the trigger trips the head of the stem and thereby releases the spring (29) which throws the stem forward and causes the collar (32) at the front of the spring to violently strike the projectile and to shoot the same forward.

While the gun barrel is approaching its foremost position, the other link (11) comes in contact with the spring (24) and presses the same forward, thereby setting up a rearward tension in the same, which, while not able to arrest the forward thrust of the gun barrel, becomes effective as soon as the force of the forward thrust is spent and throws the barrel back to its original position.

I claim:

1. In a toy gun, a barrel, a carriage supporting the same comprising a plurality of pivotal supporting links having means associated therewith for thrusting the barrel upward and forward, spring means within the barrel for imparting a forward thrust to a projectile, a trigger supported on the barrel for setting the spring, and means opposing the forward thrust of the trigger for tripping the same.

2. In a toy gun, a barrel, a carriage supporting the same comprising a plurality of pivotal supporting links having means associated therewith for thrusting the barrel upward and forward, spring means within the barrel for imparting a forward thrust to a projectile, a trigger supported on the barrel for setting the spring, means opposing the forward thrust of the trigger for tripping the same, and spring means for returning the barrel to its original position actuated by the forward thrust.

3. In a toy gun, a platform, a shield for the same, a base pivotally supported on the platform, two vertical plates secured to the base in spaced relation, a barrel, a carriage for the same comprising a plurality of pivotal supporting links, transverse shafts secured in the plates for supporting the links, a lever actuating the links for thrusting the barrel forward and upward, and impelling means for a projectile associated with the barrel permitted to act by its forward thrust for imparting a forward thrust to a projectile.

4. In a toy gun a barrel, a carriage supporting the same having means associated therewith for thrusting the barrel forward and upward and for simultaneously changing its horizontal position to a slanting position, spring means for impelling a projectile within the barrel, a trigger supported on the barrel for setting the spring, and means opposing the forward thrust of the trigger for tripping the same.

5. In a toy gun a barrel, a carriage supporting the same having means associated therewith for thrusting the barrel forward and upward and for simultaneously changing its horizontal position to a slanting position, spring means for impelling a projectile within the barrel, a trigger supported on the barrel for setting the spring, means opposing the forward thrust of the trigger for tripping the same, and spring means for returning the barrel to its original position actuated by the forward thrust.

CYRILL OTTOLINI.