(No Model.)

C. HAROLD.

SPRING GUN.

No. 583,175. Patented May 25, 1897.

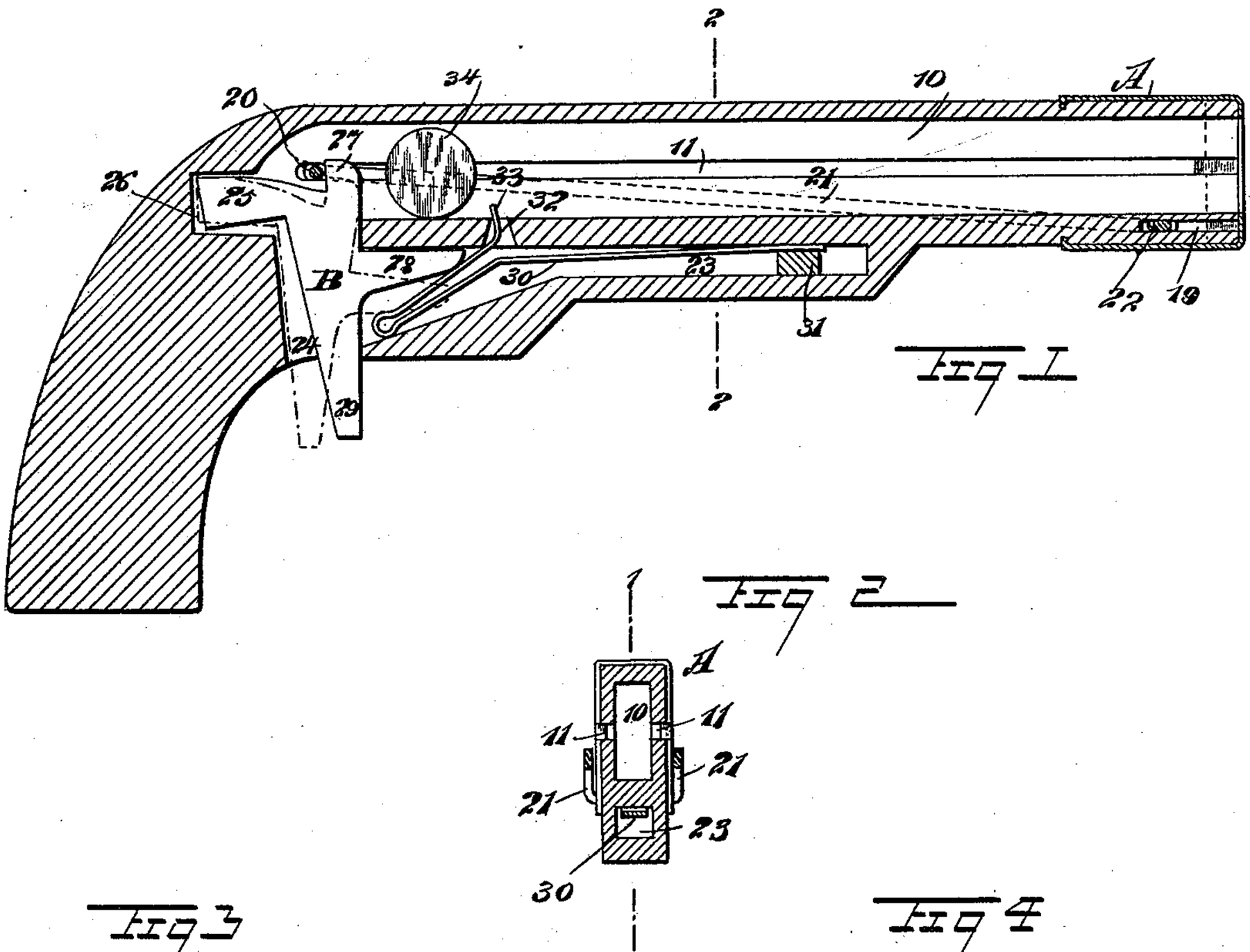


Fig 1

Fig 2

Fig 3

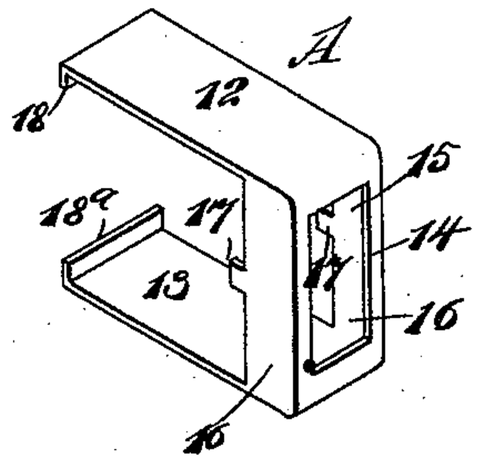
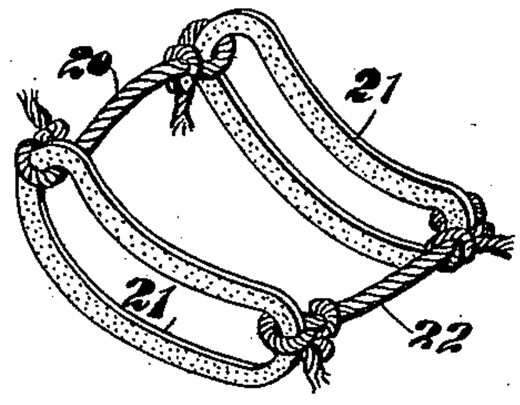


Fig 4



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CHARLES HAROLD, OF NEW YORK, N. Y.

SPRING-GUN.

SPECIFICATION forming part of Letters Patent No. 583,175, dated May 25, 1897.

Application filed August 13, 1896. Serial No. 602,621. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HAROLD, of New York city, in the county and State of New York, have invented a new and Improved Toy Gun, of which the following is a full, clear, and exact description.

The object of my invention is to provide a toy gun or pistol of simple, durable, and economic construction, comprising but few parts, and capable of ejecting from the barrel a projectile which may be in disk form or which may partake of the character of an arrow or long cartridge, the propelling device being a spring.

A further object of the invention is to so construct the trigger that it may be simply laid in place and will not need a pivot-pin or like device to hold it, and, furthermore, to provide a means controlled by the trigger which will hold the charge securely in position in the barrel prior to its ejectment.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal vertical section through the improved toy arm, the section being taken practically on the line 1 1 of Fig. 2. Fig. 2 is a transverse section taken substantially on the line 2 2 of Fig. 1. Fig. 3 is a detail perspective view of the muzzle-guard for the arm. Fig. 4 is a detail perspective view of one form of the spring used in connection with the barrel and the trigger.

In carrying out the invention the barrel 10 of the gun or pistol is preferably made rectangular in cross-section, although it may be given any other desired contour, and in each side of the barrel a longitudinal slot 11 is produced, which extends from the rear of the barrel through the muzzle. The muzzle is preferably provided with a guard A, which is usually made of a spring material and comprises a top member 12, a bottom member 13, a front member 14, in which an opening 15 is made, and side members 16, which join the front member. The side members 16 are each provided with a projection 17 in their rear side edges, while a flange 18 is projected downward from the rear end of the top member 12, and a similar flange 18^a is extended upward from the bottom member 13, as shown particularly in Fig. 3. The guard fits snugly over the muzzle, and the flanges 18 and 18^a enter slots that are produced in the top and in the bottom of the barrel. This muzzle-guard A also covers a second slot 19, which is made in the barrel below its bore or chamber, the slot 19 being at the muzzle end of the barrel. This slot is adapted to retain in position the ejecting device, and the said ejecting device, as shown in Fig. 4, usually consists of two elastic bands 21, which are connected at their ends by cords 20 and 22, one of the cords being passed through the slot 19 and held therein through the medium of the guard A, a peg, or the equivalent of either, the other cord being carried through the longitudinal slots 11 in the barrel, so that one of the bands 21 will be at each side of the barrel; but it will be understood that metal springs may be substituted for the elastic bands if in practice it is found desirable.

Under the rear portion of the barrel a longitudinal chamber 23 is made, and the said chamber 23 communicates with a vertical chamber 24, which may be termed a "trigger-chamber," and is in communication with the back of the barrel, and the trigger-chamber at its rear upper portion is provided with a rearwardly-extending portion 26. The trigger B is contained within the chamber 24, and this trigger has a branch 25 projecting rearwardly from its upper portion and into the portion 26 of the chamber 24. The trigger is furthermore provided with an upwardly-extending arm 27, which constitutes a keeper, and the forward edge of this arm or keeper is more or less rounded off, while a spur 28 is forwardly projected from about the center of the forward edge of the trigger, and the said spur extends within the horizontal chamber 23 and engages normally with the under face of the wall separating the chamber 23 from the barrel 10, as shown in Fig. 1.

The lower portion 29 of the trigger extends out through the lower portion of the trigger-chamber 24 and is adapted to be grasped by the finger and drawn rearward to fire the projectile. In loading the gun or pistol the inner

cord 20 is carried rearward until it is caught behind the keeper 27 of the trigger, as shown in Fig. 1, and the projectile is then placed in position in front of the trigger. The trigger is held in its normal position—that is, in position to hold the springs or elastic bands 21 under tension—by means of a spring 30, and this spring is located in the chamber 23, being secured at its forward end within the said chamber, but the spring is carried from its point of attachment rearwardly to a point in front of the trigger below the spur 28, and the said spring is then usually returned upon itself, the returned portion engaging with the spur, holding it in a horizontal position, and the rear end of the spring is then carried upward through an opening 32 in the wall separating the chamber 23 from the barrel, the rear end of the spring extending upward within the barrel, forming a stop 33, which serves to prevent the projectile 34, which may be in the nature of a disk, as shown in Fig. 1, from leaving the barrel prior to the operation of the trigger. When the trigger is drawn, the spur 28 will force the stop member of the spring downward from the barrel and the keeper portion of the trigger will be depressed sufficiently to release the ejecting device, which, acting on the projectile, will propel it with considerable force from out the barrel.

It will be observed that the trigger needs no pivot-pin, the arm 25 of the trigger serving as its fulcrum, and the spring 30, bearing against the spur, returns the trigger to its normal position the moment that it is released from pressure at its outer end.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a toy pistol or gun, a barrel provided with a longitudinal slot in each of its sides, a trigger located at the rear portion of the barrel, provided with a keeper extending within the barrel, and a spur engaging with the gun or pistol at a point below the barrel, a spring having bearing on the said spur of the trigger, which spring has one of its ends extended within the barrel, and an ejecting device of spring material, attached to the barrel near the muzzle, the inner end of the ejecting device being held to travel in the slots of the barrel and to engage with the keeper of the trigger, as and for the purpose set forth.

2. In a toy pistol or gun, a barrel provided with a longitudinal slot in each of its sides, a trigger located at the rear portion of the barrel, provided with a keeper extending within the barrel, and a spur engaging with the gun or pistol at a point below the barrel, a spring having bearing on the said spur of the trigger, which spring has one of its ends extended upward within the barrel, an ejecting device of a spring material attached to the barrel near the muzzle, the inner end of the ejecting device being held to travel in the slots of the barrel and to engage with the keeper of the trigger, and a guard surrounding the muzzle portion of the barrel, clamping the same exteriorly, the said guard having an opening registering with the muzzle-opening of the barrel, as and for the purpose set forth.

3. In a toy gun or pistol, a barrel provided with a spring-pressed trigger, a stop extending within the barrel and operated by the trigger, the barrel of the gun or pistol being provided with a longitudinal slot in each of its sides, and an ejecting device, consisting of springs, located one at each side of the barrel, having their ends connected, the connecting medium at one end being secured to the muzzle end of the barrel and the connecting medium at the opposite end of the ejecting device being arranged to travel in the slots of the barrel and for engagement with the trigger, as and for the purpose specified.

4. A toy gun having a barrel, a spring-pressed projectile-impelling device, a trigger normally restraining said device, and a spring controlling the trigger, a portion of the spring projecting into the barrel of the gun to normally obstruct the same, the said portion of the spring being moved out of the barrel by the trigger as it operates to release the projectile-impelling device, substantially as described.

5. A toy arm having a barrel, a spring-pressed projectile-impelling device, a stop movable in and out of the barrel of the arm to hold the prejectile, and a trigger normally restraining the projectile-impelling device and causing the stop to release the projectile upon the release of the impelling device, substantially as described.

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Witnesses:
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