Jan. 12, 1926. 1,568,999

C. L. BUNTEN

FEED AND TRIGGER MECHANISM FOR TOY PISTOLS

Filed April 22, 1925

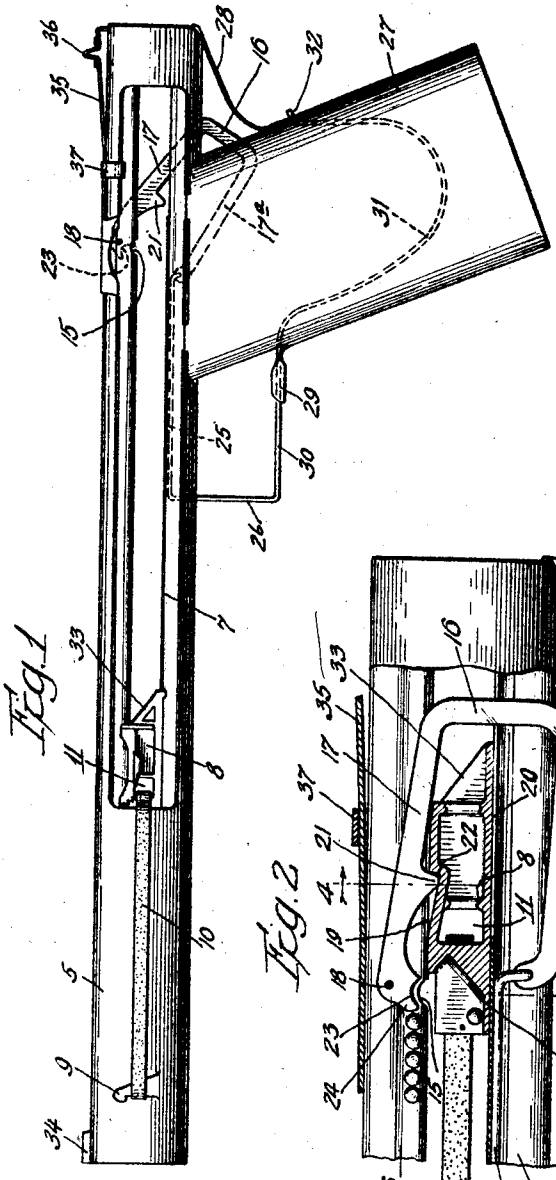

Fig. 1

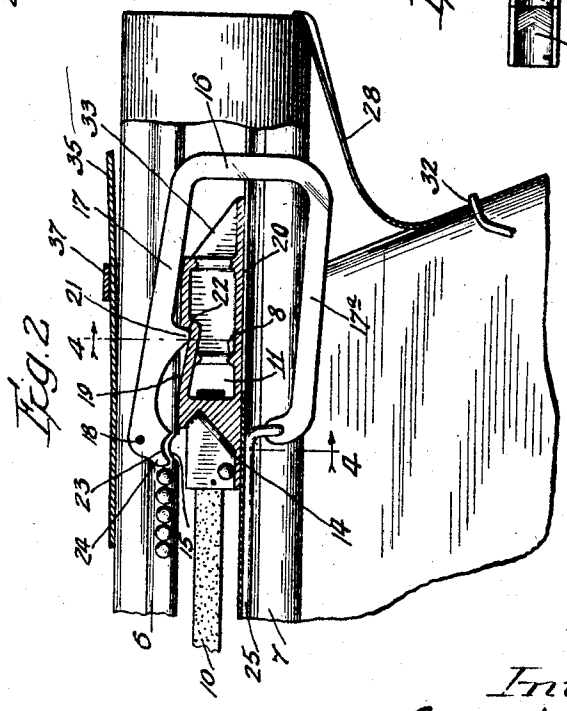

Fig. 2

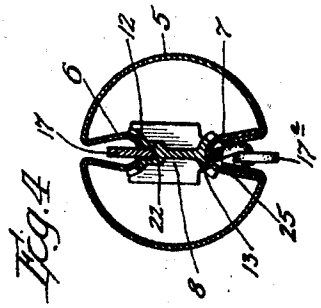

Fig. 4

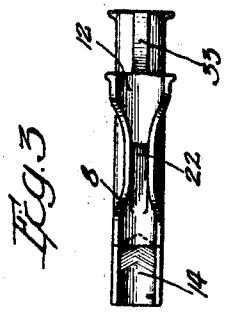

Fig. 3

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UNITED STATES PATENT OFFICE.

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FEED AND TRIGGER MECHANISM FOR TOY PISTOLS.

Application filed April 22, 1925. Serial No. 25,035.

To all whom it may concern:

Be it known that I, CLAUDE L. BUNTEN, a citizen of the United States, and a resident of Rawlins, in the county of Carbon and State of Wyoming, have invented certain new and useful Improvements in a Feed and Trigger Mechanism for Toy Pistols, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to make and use the same.

My present invention relates to toy pistols and particularly the type of structure illustrated and described in a prior Letters Patent of the United States No. 1,484,930 which was granted to me under date of February 26th, 1924.

Specifically stated the present structure concerns the feed and trigger mechanism of a toy pistol and the principal object is to provide such a structure that is simple and novel; which will not accidentally get out of order; which is dependable in its operation; and which is made of few parts so that the cost of manufacture and assembly will be materially reduced. In connection with the foregoing I have provided a unique and dependable sighting device that may be readily adjusted for the purpose of permitting the operator to more accurately aim the toy at targets that are located at divers distances.

I prefer to carry out my invention and attain the above mentioned objects in substantially the manner hereinafter fully described and as more particularly pointed out in the claims, reference being now made to the accompanying drawings that form a part of this specification.

In the drawings:—

Fig. 1 is a longitudinal side view of a toy pistol showing my present improvements incorporated therein.

Fig. 2 is an enlarged fragmental view in longitudinal section showing the feed and trigger mechanism in detail.

Fig. 3 is a top plan of the side or carrier for receiving the projectiles or pellets.

Fig. 4 is a transverse section of the structure illustrated in Fig. 2, the view being taken on broken line 4—4 thereof.

In the drawings, which illustrate a typical or preferred embodiment of my invention, I have employed similar reference characters to designate like parts wherever the same appear throughout the several views.

Reference first to Fig. 1 of the drawing, it will be seen the pistol comprises a barrel 5 of substantially cylindrical shape at its outer end portions, and which is formed from sheet metal bent the desired shape with a portion of the upper segments thereof pressed inwardly to provide hollow somewhat tubular guides or tracks 6 that also affords storage space in the form of a magazine for the projectiles or pellets that are used in shooting the pistol. After the formation of the barrel the adjacent edges of the metal are bent inwardly at the bottom of the barrel and an inverted U-shaped strip is suitably secured to these spaced inturned edges to provide the lower guide or track 7 for the slide or carrier 8. Posts 9 are shaped from the metal upon opposite sides of the muzzle end of the barrel to receive the looped end of an elastic or rubber band 10 and the intermediate portion of this band extends rearwardly and passes through an aperture 11 in the carrier so as to provide means for rapidly propelling the carrier forwardly to discharge the projectile out of the pocket therein.

The carrier 8 is preferably a small cast metal element provided with longitudinal grooves 12 and 13 in the upper and lower portions respectively that permit it to slide between the guide by the tracks 6 and 7 of the barrel, and its forward portion is provided with a pocket 14 to receive the projectile or pellet through the feed aperture 15 in the magazine in the upper track 6.

The means for feeding the projectiles one at a time from the magazine consists of a substantially U-shaped trigger or latch device 16 that is preferably a metal stamping and is provided at the forward end of the upper arm 17 upon a pin 18 that passes transversely through the magazine. Slots 19 and 20 are formed in the facing portions of the tracks 6 and 7 to permit of the swinging movement of the trigger and intermediate its ends the arm 17 is provided with a latch finger 21 to engage with a depressed shoulder in the upper groove 12 of the carrier when the latter is moved rearwardly to a position to be engaged thereby. The shoulder 22 is so disposed in the carrier that when the latter is moved rearwardly against the pull of the rubber band 10 the latch finger will engage with the shoulder at the same time the pellet is dropped through the feed aperture into the pocket of the carrier, thereby preventing the accidental dis-

charge of the projectile until the pistol has been properly aimed. The pivoted end of the trigger arms 17 is slightly enlarged and is provided with a concave feed recess 23 so that a hook 24 is formed forward thereof over the feed aperture, thus permitting a single projectile or pellet to be deposited in the carrier pocket each time the carrier is moved rearwardly and latched. After the pistol has been discharged the trigger is automatically moved downward to its normal position shown in Fig. 1 of the drawings so that the recess 23 is moved out of registry with the feed aperture and no pellets can thereafter pass through the aperture.

The means for operating and controlling the trigger comprises a length of wire bent substantially L-shaped one of the members 25 of which is horizontally disposed and is positioned within the lower track 7 and with its free end is pivotally connected with the lower arm 17^a of the trigger device. The other member 26 of the L-shaped wire depends laterally through the slot in the bottom of the track 7 to provide a finger piece for moving the device longitudinally. A hand-grip 27 is suitably secured to the lower portion of the barrel adjacent the rear thereof and is braced by straps 28 extending from the back of the grip to the rear of the barrel as seen in Figs. 1 and 2, while at the forward edges of the grip a portion of the metal is slitted and bent out laterally to provide a concave guide 29. The wire, after forming the L-shaped member before alluded to, is bent laterally at the lower end of the finger piece towards the rear in a somewhat sickle-shape, i. e.— there is a straight portion 30 extending inwardly parallel with the piece 25 and is seated upon the guide 29 and at its inner end is curved downwardly and upwardly to provide a yielding spring element 31 within the hand grip as shown in Fig. 1 of the drawing and with its end inserted through a hole 32 in the rear of the grip to maintain the structure in assembly. Whenever the finger-piece is moved rearwardly towards the grip the spring 31 is contracted, and the latch piece 21 is lifted free of the shoulder of the carrier to release the latter and permit it to be drawn rapidly forwardly to discharge the pellet from the pocket. To reload the structure the carrier is slid rearwardly until the inclined shoe 33 at its rear engages the latch 21 which causes the latter to ride upon the shoe and then along the upper groove 12 until the latch seats in the depressed shoulder 22 in which position the feed dog at the forward end of the trigger device will release a pellet which will gravitate into the pocket in the carrier.

The forward sight 34 may be of any form, and is preferably stationary, and at the rear I have provided an adjustable sight in the form of an upwardly curved strip of spring metal 35 that is secured at its forward end to the barrel and adjacent its rear is provided with a sight embossment 36. In order to adjust this structure I have provided a sleeve or runner 37 in the form of a strap that extends over the spring strip 35 and is bent over the edges of the adjacent portion of the barrel so that it may be moved longitudinally thereon thus permitting the spring strip to raise or lower at its rear end and thus adjust the position of the sight embossment.

What I claim is:—

1. A feed and trigger device for toy pistols comprising a barrel, spaced tracks thereon, a reciprocal carrier guided in said tracks and provided with a shoulder, a substantially U-shaped latch device pivoted at the end of one of its arms, said latch device provided with a latch finger engageable with said shoulder, and a spring member for maintaining said latch device normally in one position, said member provided with an extension adapted to be operated to compress said spring and raise said latch finger.

2. A feed and trigger device for toy pistols comprising a barrel, a propelled carrier, spaced track on the barrel for guiding said carrier, a U-shaped latch member pivoted at the end of one arm to the upper track and extended through the other track, said carrier and latch member having pawl and ratchet co-action with each other whereby the carrier may be maintained in opposition to its propelling agent, and means for maintaining said latch member normally in the path of rearward movement of the carrier.

3. A feed and trigger device for toy pistols comprising a barrel having longitudinally disposed guiding means, a carrier slidably mounted on said means, yieldable means for propelling said carrier forwardly on said guiding means, an arm pivoted on said barrel and having a projection adapted to latch with said carrier when the latter is moved rearwardly, and a spring for maintaining said arm normally in the path of said carrier and having a portion bent to provide a finger-piece whereby to rock said arm on its pivot to release the projection from the carrier and permit the latter to be propelled forwardly.

4. A feed and trigger device for toy pistols comprising a barrel, a projectible storage magazine therein having a discharge aperture in its bottom adjacent the rear of the barrel, a U-shaped member one arm whereof is pivoted in the magazine adjacent said aperture and is provided wth a recess adapted to coact with said discharge aperture to feed projectiles one at a time through the latter, and a spring for urging said U-shaped member in one direction, a portion of said spring providing a finger piece

whereby to operate the U-shaped member in a direction opposite to the urge of the spring.

5. In a toy pistol a barrel, a hollow hand-grip thereof, a projectile storage magazine in said barrel having a discharge aperture, a pivoted feed device coactable with said aperture to discharge projectiles one at a time, and a spring wire one end of which is secured to said feed device and the other end is looped within said hand-grip, the intermediate portion of said wire being extended outside said barrel and hand-grip to provide a movable finger piece through the medium of which said feed device is operated.

Signed at Rawlins, in the county of Carbon, and State of Wyoming, this 11th day of April, 1925.

CLAUDE L. BUNTEN.