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2,770,916

TRIGGER MECHANISM FOR TOY GUNS

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Application November 28, 1952, Serial No. 322,912

1 Claim. (Cl. 46—175)

This invention relates to new and useful improvements in toy guns and it is among the objects thereof to provide a toy gun embodying a novel form of trigger release to effect impact of a movable barrel with a stop to produce sound.

It is a further object of the invention to provide a toy gun or pistol consisting of a minimum of movable parts biased by coil springs in a manner to be operable by movement of a novel form of trigger mechanism.

These and other objects of the invention will become more apparent from a consideration of the accompanying drawing constituting a part hereof in which like reference characters designate like parts and in which—

Fig. 1 is a side elevational view of a toy pistol embodying the principles of this invention,

Fig. 2 is a similar view with the cover removed to show the operating parts;

Fig. 3 is a vertical cross sectional view taken along the lines 3—3, Fig. 2; and

Fig. 4 is a view in perspective of a trigger slide.

In the drawing the numeral 1 generally designates the gun stock having a pistol grip 2, a barrel 3, and a movable sleeve 4. The stock 1 may be a split member or it may be provided with a cover which, in either case, provides for accessibility for the assembly of the movable parts.

As shown in Fig. 2, the grip 2 is a hollow member and is slotted out at 5 to receive a trigger 6, the trigger being a flat elongated member recessed at 7 to permit it to extend beyond the edge of the wall of the stock 1. As shown in Fig. 4, the trigger 6 is integrally formed with a slide, generally designated by the numeral 8, which has a body portion 8 of rectangular shape that slides in a complementary-shaped recessed portion 9 of the gun stock at one end and a recessed portion 10 at the outer end. The slide 8 is biased by a coil spring 11 to normally extend with its end 12 abutting the wall 13 of the pistol stock. When the trigger 6 is retracted, as in the act of shooting, the slide 8 moves rearward into the recess formed by the extension 10, thereby compressing coil spring 11, and when the trigger 6 is released, the spring action will return the slide 8 to its abutting position against the wall 13 as shown in Fig. 2. The barrel 3 is slidably mounted in the stock 1 and is provided with one or more grooves 14 which engage lugs in the gun stock to prevent it from turning while permitting free sliding movement thereof. The barrel 14 is provided with an extending fin-like portion 15 to provide an ornamentation of a wing-like member that moves with the barrel 3, and the gun stock is cut out with circular openings as shown at 16 for ornamental effect. As shown in Fig. 2, the barrel is cut away at 17 to form a shoulder 18 that is engaged by a shoulder 19 of the trigger slide 8, and a rounded portion 20 is provided on the slide 8 which engages the projection 21 of the gun stock to depress it downwardly, it being noted that the slide 8 is slotted as shown at 22 to constitute the upper portion a spring

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element. The gun barrel 3 is also biased by a coil spring 23 disposed in a recess provided for that purpose in the stock 1 so that when the barrel is disengaged by the trigger slide 8 it will be extended in a forward direction. The sleeve element 4 as shown in Fig. 2 is also provided with a coil spring 24 which is a weak spring that permits the sleeve to slide when the barrel is subjected to movement by the trigger action.

The operation of the above described toy gun is briefly as follows. With the trigger slide 8 and barrel 3 assembled in the manner shown in Figs. 2 and 3, they are both biased by the respective coil springs 11 and 23 to the forward position as shown in Fig. 2. By retracting the trigger 6, shoulder 19 of slide 8 engages shoulder 18 of the barrel 3, moving it rearward against the action of the springs 11 and 23. When the lip 20 engages the extension 21 of the gun stock, the spring portion of slide 8 formed by the slot 22 will become depressed until shoulder 19 releases shoulder 18 and the pistol barrel 3 will spring forward by action of the coil spring 23. The extending wing portion 15 will strike the face 25 of the stock 1 and produce a resounding impact. The trigger slide 6 will return to its forward position when released by action of spring 11. By slipping the trigger finger downward when slide 6 is retracted against spring 11 rapid firing may be simulated. By repeated retraction of the trigger 6, the barrel 3 and wing portion 15 will continue to reciprocate back and forth. Sleeve 4, because of its spring mounting 24, will also produce a perceptible sliding action which adds to the animated effect simulating recoil action of a pistol.

It is evident from the foregoing description of this invention that toy pistols or guns made in accordance therewith are of simple construction and can be made of wood, plastic, or other light weight materials for use as a play toy.

Although one embodiment of the invention has been herein illustrated and described, it will be evident to those skilled in the art that various modifications may be made in the details of construction without departing from the principles herein set forth.

I claim:

In a toy gun, a stock having a slot in the top thereof, and a trigger slide projecting through a portion of the bottom of the stock adjacent a hand grip provided on said stock, a gun barrel mounted for freely sliding movement in said stock having a wing-like projection extending through the slot in the top of the stock, said wing-like element having a shoulder for abutting the forward end of the stock to produce a sound, a coil spring at the rear of the barrel for biasing the same in a forward direction, said trigger slide having an integrally formed spring finger extending longitudinally beneath the barrel notched for engaging a complementary shaped portion of the barrel to retract the latter, and means in the path of rearward movement of said spring finger for displacing the same to release the barrel, said trigger slide being biased by a spring in a forward direction.

References Cited in the file of this patent

UNITED STATES PATENTS

188,028	Quackenbush	Mar 6, 1877
945,484	Anderson	Jan. 4, 1910
1,259,463	De Fir	Mar. 12, 1918
2,529,709	Sigg	Nov. 14, 1950
2,642,057	Watkins	June 16, 1953

FOREIGN PATENTS

285,217	Germany	June 12, 1915
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