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B. F. KIESEL

2,053,152

TOY GUN

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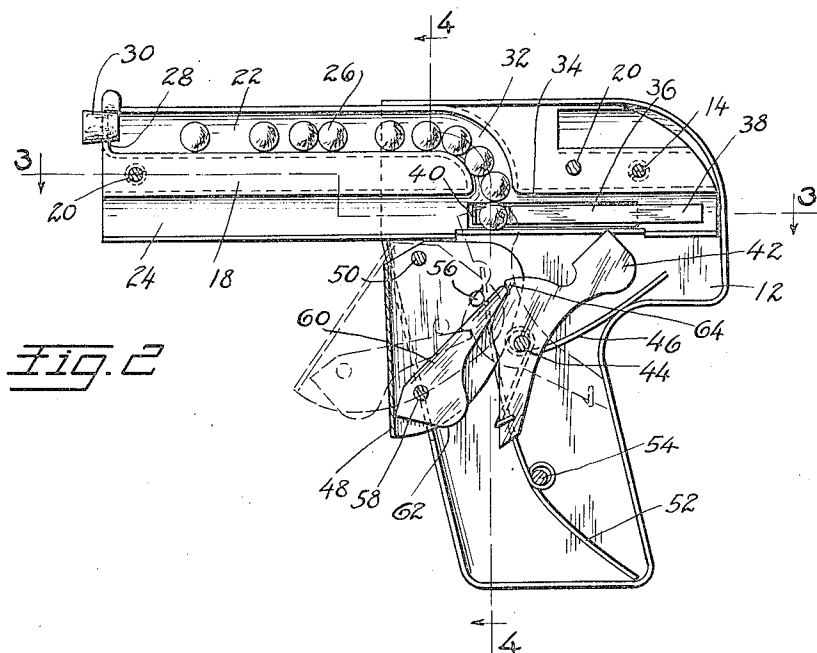


Fig. 2

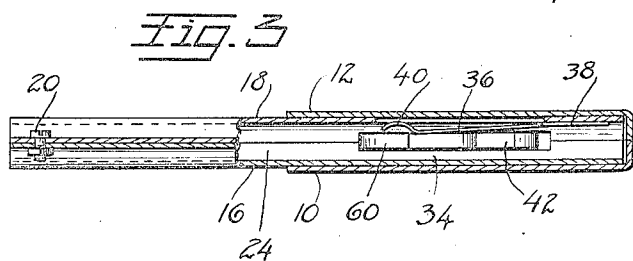


Fig. 3

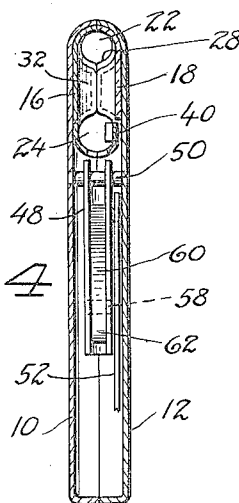


Fig. 4

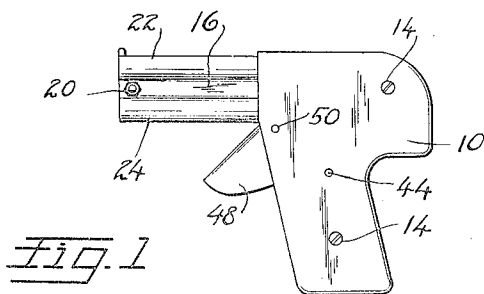


Fig. 1

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TOY GUN

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2 Claims. (Cl. 124—13)

My invention relates to improvements in toy guns and particularly to a toy gun of the repeater type adapted to discharge projectiles in the form of pellets, such as dried peas, and is here shown as embodied in a structure of the toy pistol character.

An object is to provide such a toy gun which is simple, inexpensive, and comprising the minimum number of sturdy working parts and is not adapted to get easily out of order or to be affected by rough usage which such toys receive at the hands of children.

A further object is to provide a toy gun of the character described having two barrels. One barrel communicates with the chamber for the discharge of projectiles. The other barrel serves as the magazine and communicates with the chamber to deliver projectiles singly in succession thereto.

The structure is characterized by the provision of a spring actuated hammer adapted to drive the projectiles from the chamber through the discharge barrel and adapted when in the firing position to prevent another projectile being received within the chamber. It is further characterized by the provision of trigger mechanism operable to withdraw the hammer against the tension of its spring and adapted upon movement of a determined distance to release the hammer to be actuated by its spring to discharge the projectiles. These working parts are enclosed within the stock.

A meritorious feature is the provision of simple retaining means adapted to hold each projectile releasably within the chamber for discharge therefrom under impact of the hammer.

Other objects, advantages, and meritorious features will more fully appear from the following description, appended claims, and accompanying drawing, wherein:

Figure 1 is a side elevation of a toy pistol embodying my invention,

Fig. 2 is a longitudinal sectional view through the pistol shown in Fig. 1,

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2, and

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 2.

The gun illustrated is preferably made of sheet metal. This may be stamped into complementary halves which are fitted together to form a barrel and stock. The stock comprises two halves 10 and 12 which form an enclosure for the working parts and which carry the barrel. These sections may be secured together by screws 14. The barrel

portion is also formed in halves and is shaped to provide two barrels. The halves of the barrel portion may be indicated as 16 and 18 secured together by bolts 20 or the like so as to form the two barrels 22 and 24. The upper barrel serves as a magazine to retain the projectiles such as dried peas 26 and a ledge 28 is formed at the forward end so as to provide an opening of a size to restrict the entry of pellets into the barrel which are too large to function properly therein or which might jam therein. The pellets should be sufficiently smaller than the inside of the barrel to move freely therethrough without jamming and this ledge insures such result. A closure in the form of a cork 30 may be provided.

The upper barrel has a curved extension 32 which leads into a chamber 34, which chamber really constitutes an extension of the lower barrel 24. A flat spring member 36 is secured within the chamber at one end as at 38 and is provided with a curved or concave recess or cup-shaped portion 40 at the end which forms one side wall of the chamber. When the peas move through the curved passageway 32 to drop into the chamber they drop in that portion adjacent the cup-shaped end 40 of the spring member so that they are held in position against accidental movement from the chamber into the barrel 24 but, due to the yielding character of the spring, may be readily projected therefrom upon being struck by the hammer.

The working mechanism such as the hammer and trigger mechanism are located within the stock. I provide a hammer 42 which is pivoted at 44 within the stock and held by a spring 46 so as to be normally projected to the position shown in dotted outline in Fig. 2. This is the firing position and in this position the head of the hammer is disposed within the chamber, as shown in dotted outline in Fig. 2, in such a manner that the pellet which will be fired rests upon the top of the head of the hammer and is prevented thereby from entering the chamber.

Trigger mechanism is provided in the form of a trigger 48 which is made of sheet metal stamped into channel form as shown in Figs. 2 and 4. This trigger is pivoted upon a pin 50 when in the stock for swinging movement. The trigger is held by a spring 52 supported upon a pin 54 within the stock having one end bearing against the butt of the stock and the opposite end against the pin 56. The front of the trigger normally projects forwardly as shown in Fig. 1. The trigger is pulled against the yielding resistance of this spring.

Mounted within the trigger 58 is a pawl 60. This pawl has a weighted end 62 so that it normally occupies the position shown in dotted outline in Fig. 2 the weighted end tending to return it to this position. The hammer is provided with a shoulder 64 so arranged that when the hammer is in the forward position as shown in dotted outline in Fig. 2 and the trigger is pulled the nose of the pawl engages the shoulder of the hammer and moves the head of the hammer rearwardly to the position shown in full outline in Fig. 2 against the yielding resistance of hammer spring 46. The full outline position of Fig. 2 is the completely retracted position of the hammer. Upon the trigger being pulled a little further it is apparent that the nose of the pawl will release the shoulder 64 of the hammer and the hammer will fly forward under the impetus of its spring 46 to the position shown in dotted outline in Fig. 2.

When the hammer is moved rearwardly upon the pulling of the trigger in the engagement of the pawl therewith, as described, it permits a projectile to drop into the chamber to be held therein by the spring 38. The projectiles are of such a size and the cupped portion of the spring so formed that only one projectile may be received within the chamber at a time. When the hammer is tripped upon the trigger being pulled completely rearwardly the trigger flies forward and drives the projectile in the chamber therefrom and through the barrel 24 and occupies the position shown in dotted outline in Fig. 2 preventing the depositing of another projectile in the chamber until the hammer is withdrawn. The trigger mechanism upon its release moves forward to the dotted line position shown in Fig. 2 under the impetus of its spring, and the weighted pawl drops to the dotted line position shown in Fig. 2 so as to be in position to again engage the hammer upon pulling of the trigger.

What I claim:

1. A toy gun having a barrel provided with a chamber adapted to receive and releasably retain a projectile for discharge through the barrel, a hammer pivotally supported to be swung to drive

the projectile through the barrel, said hammer provided with a forwardly projecting shoulder, a spring coupled with the hammer to be tensioned upon retraction of the hammer operable upon release of the hammer to swing the hammer forwardly to drive the projectile from the chamber through the barrel, a pivotally supported channel shaped trigger, a spring adapted to hold the trigger normally forwardly, a weighted pawl pivoted within the channel of the trigger having a part adapted to engage the shoulder of the hammer to retract the hammer upon rearward movement of the trigger, the side walls of said channel shaped trigger extending rearwardly sufficiently to embrace the engagement of said weighted pawl with said shoulder on the hammer at all times.

2. A toy gun having two superimposed parallel barrels, the lower barrel adapted for the discharge of projectiles and the upper barrel adapted to serve as a magazine for the projectiles, said barrels communicating with one another adjacent their rear ends for the delivery of projectiles from the magazine barrel into the discharge barrel, a projectile retaining spring member extending along one side of said discharge barrel secured at its rear end thereto and provided at its forward and free end below the communication between said magazine and discharge barrels with a cup-shaped formation into which the projectiles are deposited and yieldingly retained within the discharge barrel, a pivoted hammer adapted to be swung forwardly into said discharge barrel to drive therethrough projectiles received from said magazine barrel, said hammer adapted upon forward swinging movement to travel over said spring compressing the same and driving the projectile from yielding retention by said spring member through the discharge barrel, said hammer adapted upon completion of its forward swinging movement to close the projectile communication opening leading from the magazine barrel into the discharge barrel.

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