Nov. 15, 1938. J. E. BRUBAKER 2,137,154

TOY PISTOL

Filed Oct. 11, 1937

Fig. 1.

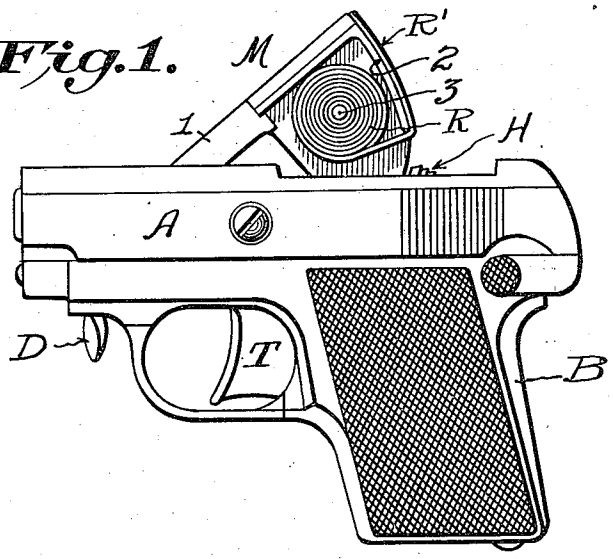


Fig. 2.

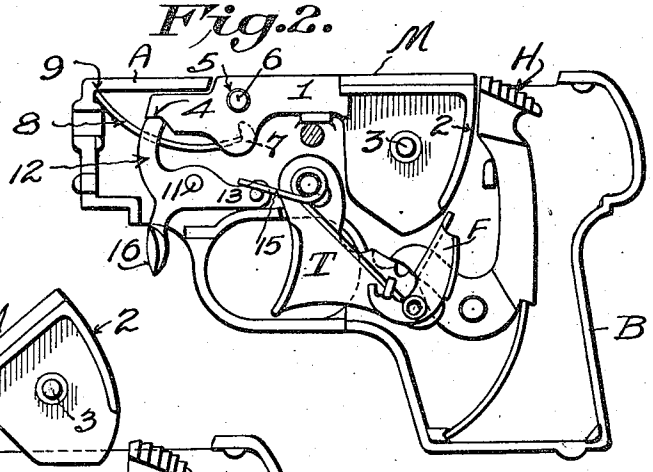
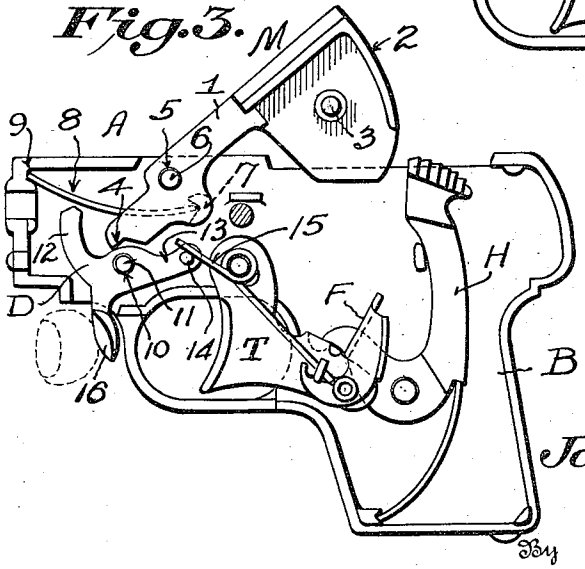


Fig. 3.



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TOY PISTOL

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3 Claims. (Cl. 42—57)

This invention relates to toy pistols, and more particularly to a novel improvement in magazines for holding the strip or tape carrying the caps.

In many toy pistols of the repeating type, the placing or loading of the rolls or reels of tape in the magazine is frequently attended with more or less difficulty because the magazine is not readily accessible, and, moreover, the threading of the tape over the anvil attended with inconvenience. Also, in some instances the magazine is so located that when the cap tape is being threaded over the anvil there is a possibility of the hammer accidentally exploding one or more of the caps with consequent danger and possible injury to the user of the toy. This danger is overcome in my Patent #1,993,916, dated March 12, 1935 which shows a break barrel type of toy, but so far as I am aware, these advantages have never been heretofore provided in a pistol of the straight barrel type, that is, a pistol wherein the barrel and stock are rigid after the fashion of the so-called "automatic" weapons of standard practice.

Accordingly, a primary object of the invention is to provide, in a toy of the type last referred to, a novel magazine construction which automatically moves to open position upon the manipulation of a detent or its equivalent, and, which on the other hand is held in locked or closed position by the detent when the toy is in use. In that connection the present improvement contemplates a magazine which is permanently associated with the toy as distinguished from magazines which are removable and likely to become lost. In the present construction the magazine is projected automatically upward or out-of-line with the barrel thereby to be available for mounting the reel or roll of tape and also threading the same over the face of the anvil with facility. When the magazine is moved to normal position the strip of caps over the anvil will be placed in proper position for engagement by the hammer of the pistol.

A further object of the invention is to provide a construction which is simple, practical and reliable both from the standpoint of manufacture and use.

With the above and other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

A preferred and practical embodiment of the invention is shown in the accompanying drawing, in which:

Figure 1 is a side elevation of a toy pistol embodying the present improvements.

Figure 2 is a sectional view of the construction shown in Figure 1.

Figure 3 is a view similar to Figure 2 showing the magazine open.

Similar reference characters designate corresponding parts throughout the several figures of the drawing.

According to the embodiment of the toy pistol shown in the drawing the same includes in its organization a barrel portion designated generally as A and a handle or stock B rigidly connected, together with a magazine M pivotally mounted in the barrel and controlled by the finger operated detent D as will presently appear more in detail.

As will be apparent from Figures 2 and 3 the pistol includes a hammer H actuated by a trigger T, the latter in turn actuating suitable tape feeding means F. These parts are substantially the same in operation and construction as those shown in my former patent previously referred to.

The magazine M comprises a body portion designated generally as 1 formed at one end with an arcuate anvil portion 2 which defines one side of the magazine recess which has centrally located therein a cap reel receiving pin or post 3. The end of the body opposite the portion which receives the reel or roll of caps is provided with a locking shoulder 4 while the intermediate portion thereof is provided with an opening 5 for receiving a pivot 6 preferably cast from one of the walls of the pistol. At one side of the pivot opening 5 the magazine body 1 is provided with a spring abutment 7 which receives one end of a leaf spring 8 whose opposite end abuts against a shoulder 9 within the end of the pistol barrel. This spring 8 normally biases the magazine M to open position, or, in other words, unless the magazine is restrained or detained, the spring 8 forces the same to the open position shown in Figures 1 and 3.

For the purpose of holding the magazine M in normal position, the manually controlled detent D is provided. This element preferably includes a body having a central opening 10 for receiving the pivot 11 so as to rock thereon, and includes the oppositely extending arm portions 12 and 13. The arm 12 is formed at its upper end to cooperate with the shoulder 4 on the body of the magazine as shown in Figure 2 for the purpose of holding the magazine in normal position.

The arm 13 may be provided with a stud 14 or its equivalent which is engaged by one of the legs of a spring 15, which in the present instance is used to tension the main trigger T and tape feeding means F. The spring 15 tends to rock the detent D in a clockwise direction, or in other words, tends to pull the arm 12a toward the shoulder 4. Between the arms 12 and 13 and depending therefrom, the detent D is provided with the finger engaging member 16 for the purpose of rocking the detent on the pivot 11 against the tension of the spring 15.

When the magazine M is in its normal closed position as shown in Fig. 2 it will be apparent that it is maintained in this position due to the engagement of the arm 12 of the detent with the shoulder 4, the spring 8 being under maximum tension. When it is desired to reload or refill the magazine with a fresh roll of cap tape, it is only necessary for the user of the toy to press his finger against the finger piece 16 of the detent D, as indicated in Fig. 3, which will cause the detent to rock in an anti-clockwise direction and thereby remove the upper end of the arm 12 from beneath the shoulder 4 and thus leave the entire magazine M to the influence of the energy stored in the spring 8 which will cause it to move to reloading position as shown in Fig. 3.

From Figures 1 and 3 it will be quite apparent that the reloading of the magazine can be effected in a simple, safe and expeditious manner. Referring particularly to Figure 1 it will be seen that the magazine is readily accessible because it is raised above the barrel A and also entirely above the head of the hammer H. Thus, the reel or roll R or cap tape may be placed on the pin or post 3 and the end R' of the tape threaded across the face of the anvil 2 without any difficulty. After reloading, it is only necessary to depress or push down on the magazine to bring it to firing position. In moving downwardly the portion of the cap tape disposed over the face of the anvil 2 will be forced between the head of the hammer H and the anvil in such a way as to maintain the tape in proper position and not let the same slip or be deflected from proper position.

From the foregoing it will be apparent that the present invention provides a novel automatically opening magazine which is not only permanently associated with the toy so as not to become lost or otherwise disengaged therefrom but which moves to reloading position by the simple act of pressing the detent finger piece 16. When in reloading position, the tape may be placed on the post 3 and over the anvil easily and without danger of premature explosion of any of the caps of the tape. Thus, the present construction provides a desirable safety factor in the operation of toys of this type, in addition to the convenience of manipulation and operation.

Without further description it is thought that the features and advantages of the invention will be readily apparent to those skilled in the art, and it will of course be understood that changes in the form, proportion and minor details of construction may be resorted to, without departing from the spirit of the invention and scope of the appended claims.

I claim:

1. A toy pistol including, in combination, a hammer, a trigger for actuating the same, a pivotally mounted magazine spring biased to open position and a spring tensioned trigger-like detent pivoted beneath the front end of the magazine and having an external finger engaging portion disposed substantially in line with and forward of the trigger for actuating the hammer.

2. A toy pistol including, in combination, a pivotally mounted magazine, a flat spring for biasing said magazine to open position, said spring being confined between a shoulder within the pistol barrel and an abutment on said magazine below its pivot, an anvil and a cap reel receiving post at one end of the magazine and a shoulder at the other end, and a pivoted trigger-like detent mounted beneath the shouldered end of the magazine and having a portion adapted to engage beneath said shoulder of the magazine to maintain the latter in closed position and to release the same to be free to move under spring influence when disengaged, and a spring for biasing the detent to locking position.

3. A toy pistol including a pivoted spring tensioned magazine having an anvil, and a spring tensioned trigger-like detent mounted on a horizontal pivot located beneath a portion of and lying substantially in the same plane as the magazine, said detent having a portion exposed for manual manipulation, by a finger of the same hand which holds the pistol, and also having means for engaging and releasing the magazine respectively for locking the same in firing position and releasing it to reloading position.

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