To all whom it may concern:

Be it known that I, EARL T. ADAMS, a citizen of the United States, residing at Portsmouth, in the county of Scioto and State of Ohio, have invented certain new and useful Improvements in Pistols, Canes, and Toy Guns; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same:

The present invention is in the nature of an improved mechanism for the explosion of percussion caps, and relates more particularly to that type of these devices which employ a continuous tape carrying the percussion caps at spaced intervals thereon, and adapted to explode a large number of the caps in rapid succession if so desired.

One of the essential features of the invention resides in the construction of the pawl for feeding the caps upon the anvil between consecutive blows of the hammer, the said feeding pawl being loosely connected to the trigger and receiving the direct pressure exerted during the operation of the device.

The invention also aims to provide simple and efficient means whereby the action of the hammer can be controlled directly through the trigger without the intervention of any auxiliary parts.

With these and other objects in view, the invention comprises certain novel constructions, combinations and arrangements of parts as will be hereinafter fully described and claimed.

In the accompanying drawings: Figure 1 is a longitudinal, sectional view through a toy pistol constructed in accordance with the invention, the parts being shown in normal position, with the hammer bearing against the anvil. Fig. 2 is a similar view of the parts in the position assumed when the trigger is pulled rearwardly during the operation of firing the pistol. Fig. 3 is a detail, perspective view of the firing pin.

The numeral 1 designates the casing within which the cap exploding mechanism is mounted, and the said casing may be given any suitable contour, such as that of a toy gun, a cane, or the like. In the embodiment of the invention illustrated in the present drawings, the casing 1 is in the shape of a toy pistol comprising the barrel portion 2 and the handle portion 3, and is formed of two longitudinal sections which may be fastened together by any suitable means such as screws or rivets passing through the corresponding openings 4.

The rear end of the barrel portion 2 has an opening 5 formed therein at a point corresponding to the breech of the pistol, and the portion 6 of the rear end of the casing 1 adjacent the opening 5 is designed to serve as an anvil against which the caps are exploded through the action of a sliding hammer 7.

In the present construction this hammer 7 is in alignment with the barrel portion 2 of the casing, and comprises a web portion 8 having a head 9 at one end thereof bearing against the anvil 6, and also having a lateral extending flange 10 along the upper edge thereof normally closing the breech opening 5. It will be observed that the upper portion of the head 9 extends slightly above the flange 10 and operates within the opening 5 which forms a guideway for the same.

A spring 11 is utilized for operating the hammer 7 and the end of the hammer which engages with the spring is inclined as indicated at 12, and is provided with a longitudinal extension 13 fitting within the end of the spring and preventing lateral displacement thereof. The outer end of the spring bears against a partition 14 within the barrel portion 2 of the casing. Owing to the fact that the spring engaging end 12 of the hammer is inclined, spring 11 will not only cause the longitudinal sliding movement of the hammer required for the explosion of the caps but will also tend to move the same laterally, and in the present instance downwardly, so as to be normally brought into engagement with the trigger 15. The lower portion of the trigger 15 projecting beyond the casing is curved forwardly away from the handle while the portion of the trigger within the casing is notched at 16 and engages a lateral projection 17 upon the hammer 7. It will thus be seen that when the outer portion of the trigger 15 is pulled rearwardly and the said trigger swung upon its pivot 18, the notched portion 16 of the trigger will engage with the lateral projection 17 upon the hammer in such a manner as to slide the hammer away from the anvil 6 and compress the spring 11. When the trigger reaches the limit of its rearward movement the inner extremity thereof slips over the projection 17 and thereby permits the hammer 7 to be thrown forcibly against the anvil 6. Upon the reverse movement of the trigger 15, the beveled portion 19 thereof is brought into engagement with the corresponding beveled portion 20 of the projection 17, and the two co-operate with each other to move the hammer laterally until the notched portion 16 of the trigger is again brought into operative engagement with the projection 17. As has been previously mentioned it will be readily apparent that owing to the action of the inclined end 12 of the hammer 7 the spring 11 operates to cause the lateral movement of the hammer required to throw the projection 17 normally in engagement with the trigger.

The tape 21 carrying the percussion caps at intervals thereon is wound in a roll and placed upon a pin 22 within the handle portion 3 of the device, the free end of the tape being drawn upwardly over the anvil 6. The pawl 23 employed for producing an intermittent movement of the tape over the anvil is loosely connected to the outer extremity of the trigger 15 and is designed to receive the pressure of the finger exerted...
during the operation of the device. The outer portion of the feeding pawl 23 has a curved formation and co-operates with the outer portion of the trigger 15 to form a finger receiving opening 24, while the portion of the feeding pawl within the casing is reversely curved so that the inner extremity is caused to bear against the portion of the casing immediately below the anvil 6, and to move upwardly over the same when the trigger is moved for the operation of the hammer 7.

10 Owing to the fact that the finger of the operator is designed to be placed within the opening 24 and pressure directly against the pawl 23 it will be apparent that the inner end of the said pawl which engages with the tape 21 will be forced against the rear end of the casing and at the same time moved upwardly in such a manner as to cause a sliding movement of the tape over the anvil and supply a fresh cap therein between every movement of the hammer. If desired, a pin 25 may be placed within the casing to serve as a rest for the inner end of the feeding pawl 23 as indicated in Fig. 1. It may also be found desirable to employ some suitable means such as a pin 26 to co-operate with the casing for the guiding of the hammer 7 in its longitudinal movement.

25 Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A device for exploding percussion caps, comprising an anvil, a reciprocating hammer, a trigger controlling the hammer, and operating automatically during each movement of said hammer to feed a tape over the anvil.

2. A device for exploding percussion caps, comprising an anvil, a reciprocating hammer, a spring for reciprocating said hammer and for holding the same in engagement with the trigger a trigger controlling the hammer and a feeding pawl loosely connected to the trigger and co-operating with the anvil.

3. A device for exploding percussion caps, comprising an anvil, a hammer, a trigger controlling the hammer, and a feeding pawl loosely connected to the trigger and co-operating therewith to form a finger loop, the said feeding pawl operating to move a tape over the anvil.

4. A device for exploding percussion caps, comprising an anvil, a reciprocating hammer mounted within the casing and co-operating with the anvil, a trigger controlling the hammer, and a feeding pawl, one end of which is loosely connected to the trigger while the opposite end bears against a portion of the casing and slides over the same, the said pawl operating to move a tape over the anvil.

5. A device for exploding percussion caps, comprising a casing, an anvil carried by the casing, a hammer mount-