

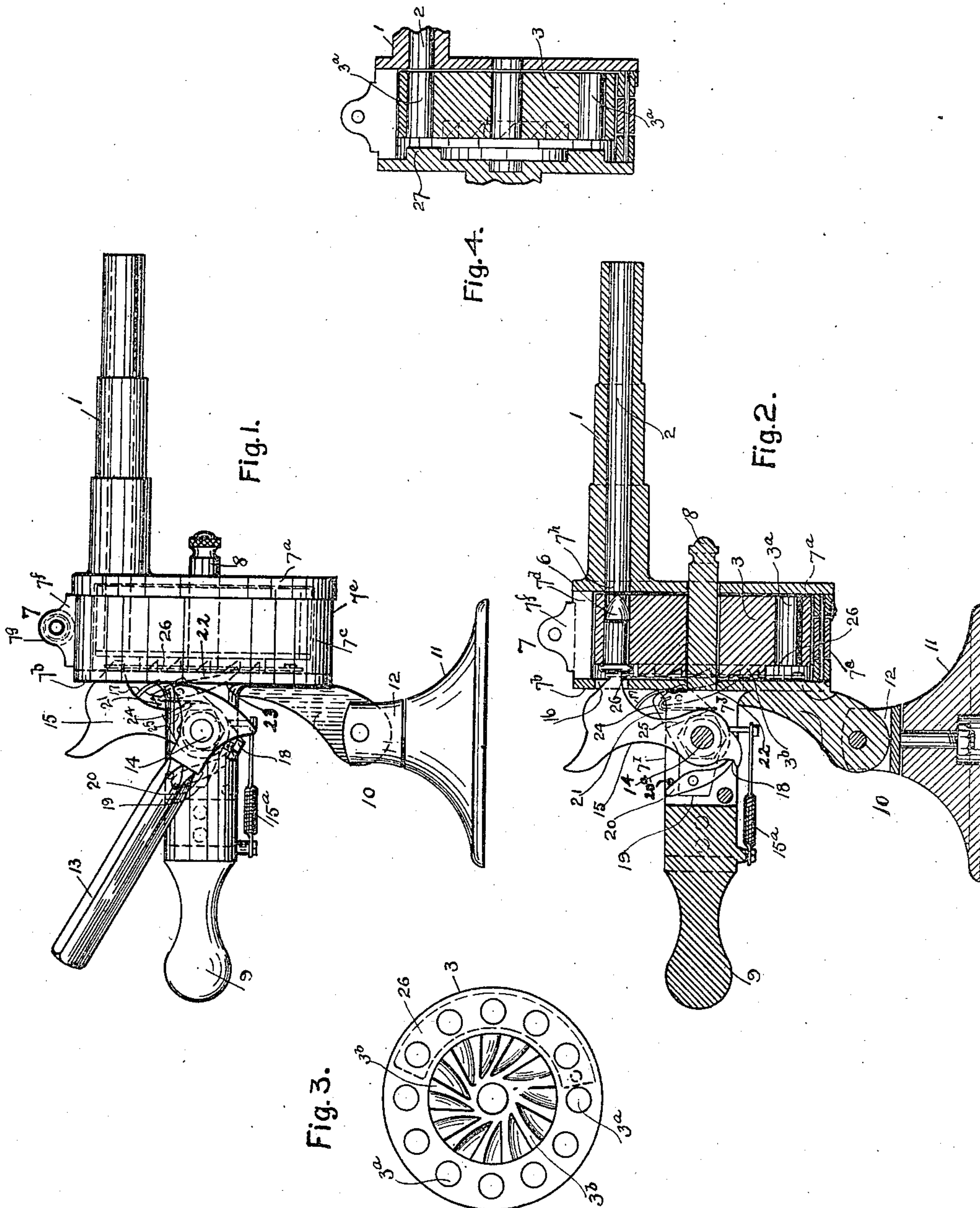
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I. T. SMITH.
MAGAZINE TOY GUN.

(Application filed Jan. 15, 1902.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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MAGAZINE TOY GUN.

SPECIFICATION forming part of Letters Patent No. 708,417, dated September 2, 1902.

Application filed January 15, 1902. Serial No. 89,808. (No model.)

To all whom it may concern:

Be it known that I, IRVING T. SMITH, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Magazine Toy Guns, of which the following is a specification.

This invention relates to magazine toy guns; and it has for its object to provide an improved device of this class which will be pleasing and instructive in use and will effectually simulate in operation the operation of standard guns of this type.

This invention has for its further object to provide an improved device of the class described and which will be relatively simple in construction and not liable to get out of order.

In the drawings, Figure 1 is a side elevation of a magazine toy gun constructed according to my invention. Fig. 2 is a central longitudinal sectional view of the device. Fig. 3 is a bottom plan view of the cylinder of the device, parts being in section. Fig. 4 is a longitudinal sectional view of the casing and cylinder, showing a modified form of my invention.

Corresponding parts in all the figures are denoted by the same reference characters.

Referring to the drawings, my improved magazine toy gun embodies a gun-barrel 1, provided with the customary bore 2, with which is associated a revolving cylinder 3, in which the projectiles are carried and by which they are presented successively in position to be ejected into and through the bore 2. The gun also embodies means 4 for revolving the cylinder 3 and a spring-actuated hammer 5, which is operated in timed relation to the rotation of the cylinder 3 to successively discharge the projectiles from the cylinder into and through the bore 2.

In the preferred form of construction the cylinder 3 is provided with an annular series of bores 3^a, each of which is capable of admitting freely and of holding a cartridge 6, and with ratchet-teeth 3^b at its rear to revolve the cylinder 3 to successively bring the bores 3^a into registration with the bore 2 of the barrel 1. The cylinder 3 is rotatably mounted in a casing 7 on a through center-pin 8, which passes through the front wall 7^a of the casing

7 and into the rear wall 7^b of the same. The casing 7 is preferably cylindrical, the front and rear walls being continuous and the side walls consisting of a fixed half 7^c and a hinged half 7^d, which may be swung open to permit the removal of the cylinder 3. The two halves 7^c and 7^d are provided at their meeting sides with securing means, whereby the two parts of the casing 7 may be secured together in operative cylindrical form. Such securing means are herein shown as arranged opposite the hinged portion 7^c of the two halves 7^c and 7^d and as consisting of lugs 7^e, provided with perforations adapted to register with each other when the casing 7 is closed. The perforation in the lug 7^e, attached to the fixed half 7^c, is preferably screw-threaded, and a thumb-screw 7^f serves to fasten the halves 7^c and 7^d together. The front wall of the casing 7 is provided with an aperture 7^h, which registers with the bore 2 of the barrel 1, and said front wall is firmly secured to the barrel 1. The casing 7 is extended rearward to contain certain operating parts and to form a handle 9, by means of which the gun may be trained in any desired direction. The casing 7 is mounted upon a suitable carriage 10, which in the form shown consists in a pedestal having a disk-shaped base 11, having an upper horizontally-revoluble part 12, upon which the casing 7 is pivotally mounted, so that it is adjustable in a vertical plane. The operation of the cylinder 3 and discharge of the cartridges 6 as they successively come opposite the aperture 7^h and the bore 2 of the barrel 1 is accomplished by means of the operating-lever 13. This lever 13 is mounted upon a rotatable pin 14, which extends through the rearward extension 7ⁱ of the casing 7 and to which the lever 13 is firmly secured. The extension 7ⁱ is slotted, and a hammer 15 is revolvably mounted on the pin 14 and works in said slot 7ⁱ. The operative part of the hammer 15 projects through a slot 16 in the rear wall of the casing 7 and is normally held out of contact with the cartridge 6 by suitable means herein shown, as by a leaf-spring 17, secured at one end to the rear wall of the casing 7 and bearing at the other end against the hammer 15. The hammer 15

is provided in its lower rear part with a rounded shoulder 18 and a suitable spring 15^a to cause the hammer 15 to fall with sufficient force to discharge the cartridge 6.

Also firmly secured to the pin 14 and projecting rearwardly therefrom and moving in the slot 7^j is an arm 19, having pivotally mounted near its end a dog 20. The dog 20 has its front upper face beveled and adapted as the arm 19 is raised to engage a pin 20^a, projecting from one of the walls of the slot 7^j and press the upper end of the dog 20 back, throwing the lower end of the dog 20 forward into engagement with the shoulder 18. An arm 21 is mounted on the pin 14 at the side of the extension 7ⁱ and firmly secured thereon. A pawl 22 is pivotally mounted on said arm 21 and projects through a slot 23 in the rear wall of the casing 7 into engagement with the ratchet-teeth 3^b. The pawl 22 is normally held in engagement with the ratchet-teeth 3^b by suitable tensional means, which in the form shown consist of a leaf-spring 24, secured to the pawl 22 and bearing against a washer 25, secured on the pin 14 adjacent to the arm 21. The arms 19 and 21 extend in opposite directions from the pin 14 in the form shown and are so organized that the pawl 22 brings one of the bores 3^a into alinement with the bore 2 and the hammer 15 as the dog 20 slips off the shoulder 18 and releases the hammer 15. Means are provided to press the cartridges 6 firmly into the bores 3^a as the cartridges 6 approach the hammer 15. In the form shown such means consist in a spring 26, which is secured at one end to the inner surface of the rear wall of the casing 7 and extends around to the edge of the slot 16, through which the hammer 15 projects, so as to bear against the cartridges 6 and force them firmly into the bores 3^a as the cylinder 3 is revolved. If desired, the spring 26 may be dispensed with and the ratchet-teeth 3^b sunk in the rear face of the cylinder 3 and the inner surface of the rear wall of the casing 7 provided with a forwardly-projecting annular flange 27 and adapted to bear against the cartridges 6 as the cylinder 3 revolves and prevent their being jarred loose partly out of the bores 3^a by the force of the explosion when the gun is fired.

The operation and advantages of my invention will be readily understood and appreciated. Cartridges 6 having been placed in the bores 3^a, the cylinder 3 is slipped into the casing 7 and the pin 8 inserted. The halves 7^c and 7^d are then closed and the thumb-screw 7^e screwed into the lug 7^f. The gun is now ready for action. Upon raising the lever 13 the pawl 22 engages one of the ratchet-teeth 3^b and moves the cylinder 3 around sufficiently to bring one of the bores 3^a into registration with the bore 2 of the barrel 1 in alinement with the hammer 15. At the same time the pin 20^a slides over the bevel face of the dog 20 and causes the lower end of the dog 20 to engage the shoulder 18. Now as the lever 13

is lowered the dog 20 presses the hammer 15 backward until the end of the dog 20 slips off the shoulder 18, when the spring 15^a throws the hammer 15 forward and discharges a cartridge 6. By successively raising and lowering the lever 13 the gun may be fired as long as there are undischarged cartridges 6 in the cylinder 3. When all the cartridges 6 have been fired, the pin 8 is withdrawn, the casing 7 opened, the cylinder 3 removed, and after the empty shells have been taken from the bores 3^a fresh cartridges are introduced and the action repeated.

I do not desire to be understood as limiting myself to the details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of construction and arrangement in the adaptation of the device to various conditions of use without departing from the spirit and scope of my invention and improvements. I therefore reserve the right to all such variation and modification as properly fall within the scope of my invention and the terms of the following claims.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. In a magazine toy gun, the combination of an operating-lever firmly secured on one end of the lock-mechanism center-pin, a spring-actuated hammer revolubly mounted on said pin and provided on its rear lower portion with a rounded shoulder, and arms projecting from said pin in opposite directions and carrying one a cylinder-revolving pawl and the other a dog adapted to engage said shoulder.

2. In a magazine toy gun, the combination of operating means firmly secured on one end of the lock-mechanism center-pin, a hammer revolubly mounted on said pin, and means carried by said pin for retracting and releasing said hammer to fire the gun.

3. In a magazine toy gun, the combination of operating means firmly secured on one end of the lock-mechanism center-pin, a hammer revolubly mounted on said pin, means carried by said pin for retracting and releasing said hammer to fire the gun, and means carried by said pin to successively present the cartridges to said hammer.

4. An improved magazine toy gun, comprising the barrel, a cylindrical shell arranged at the inner end of the barrel and embodying a fixed portion and a hinged portion, a cylinder revolubly mounted in said shell and provided on its rear face with rearwardly-projecting teeth, operating means firmly secured on one end of the lock-mechanism center-pin, a hammer revolubly mounted in said pin, and means carried by said pin for retracting and releasing said hammer to fire the gun.

5. An improved magazine toy gun, comprising the carriage, a barrel, a cylindrical shell embodying a fixed portion mounted on said

carriage and connected with the inner end of
said barrel and a hinged portion, a cylinder
revolubly mounted in said shell and provided
on its rear face with rearwardly-projecting
5 teeth, operating means firmly secured on one
end of the lock-mechanism center-pin, a ham-
mer revolubly mounted on said pin, means
carried by said pin for retracting and releas-
ing said hammer to fire the gun, and means

carried by said pin to successively present the 10
cartridges to said hammer.

In testimony whereof I have signed my
name in the presence of the subscribing wit-
nesses.

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