

J. B. GRIFFITH.

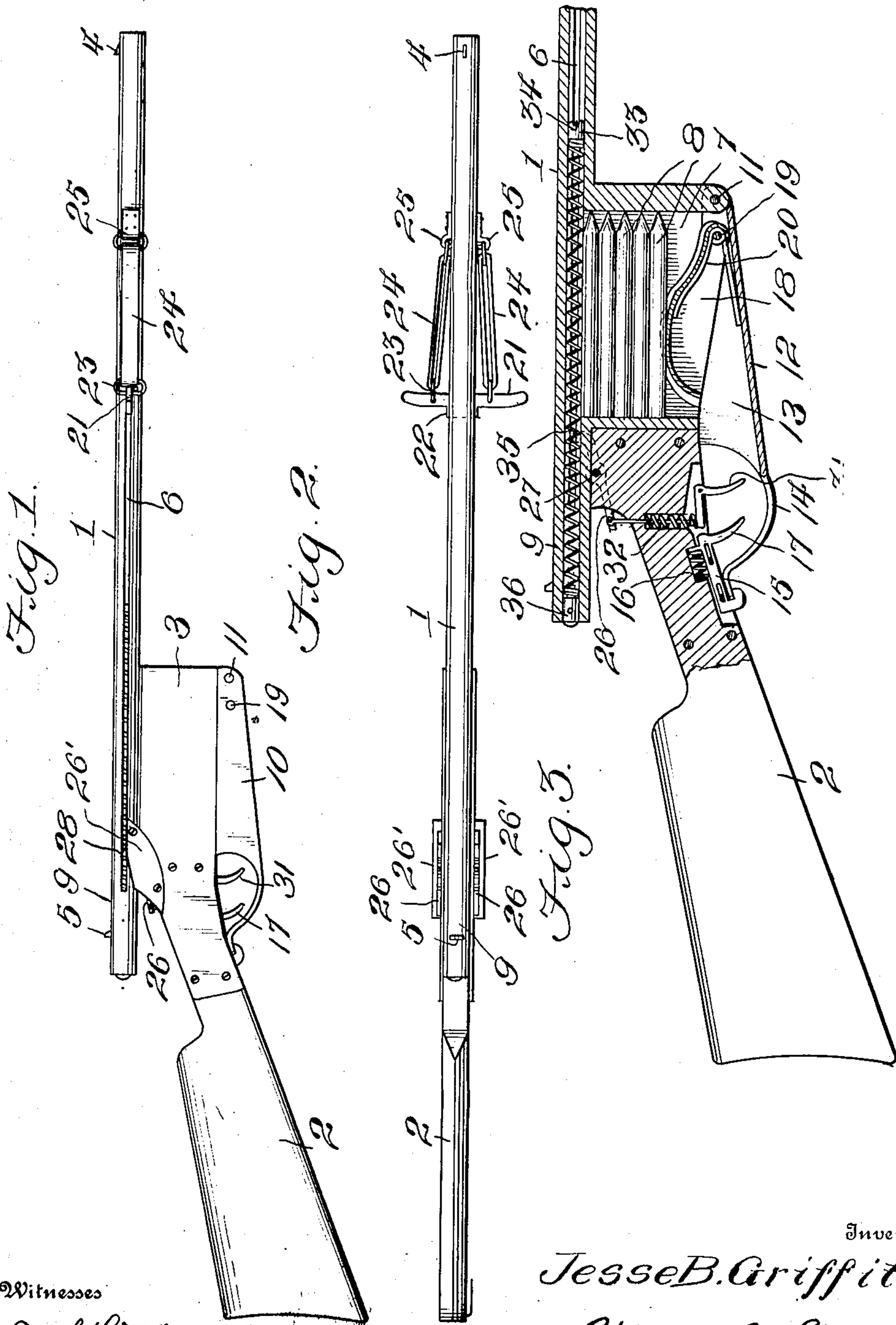
TOY GUN.

APPLICATION FILED JAN. 28, 1908.

918,444.

Patented Apr. 13, 1909.

2 SHEETS—SHEET 1.



Witnesses

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C. C. Hines.

Inventor

Jesse B. Griffith,

By

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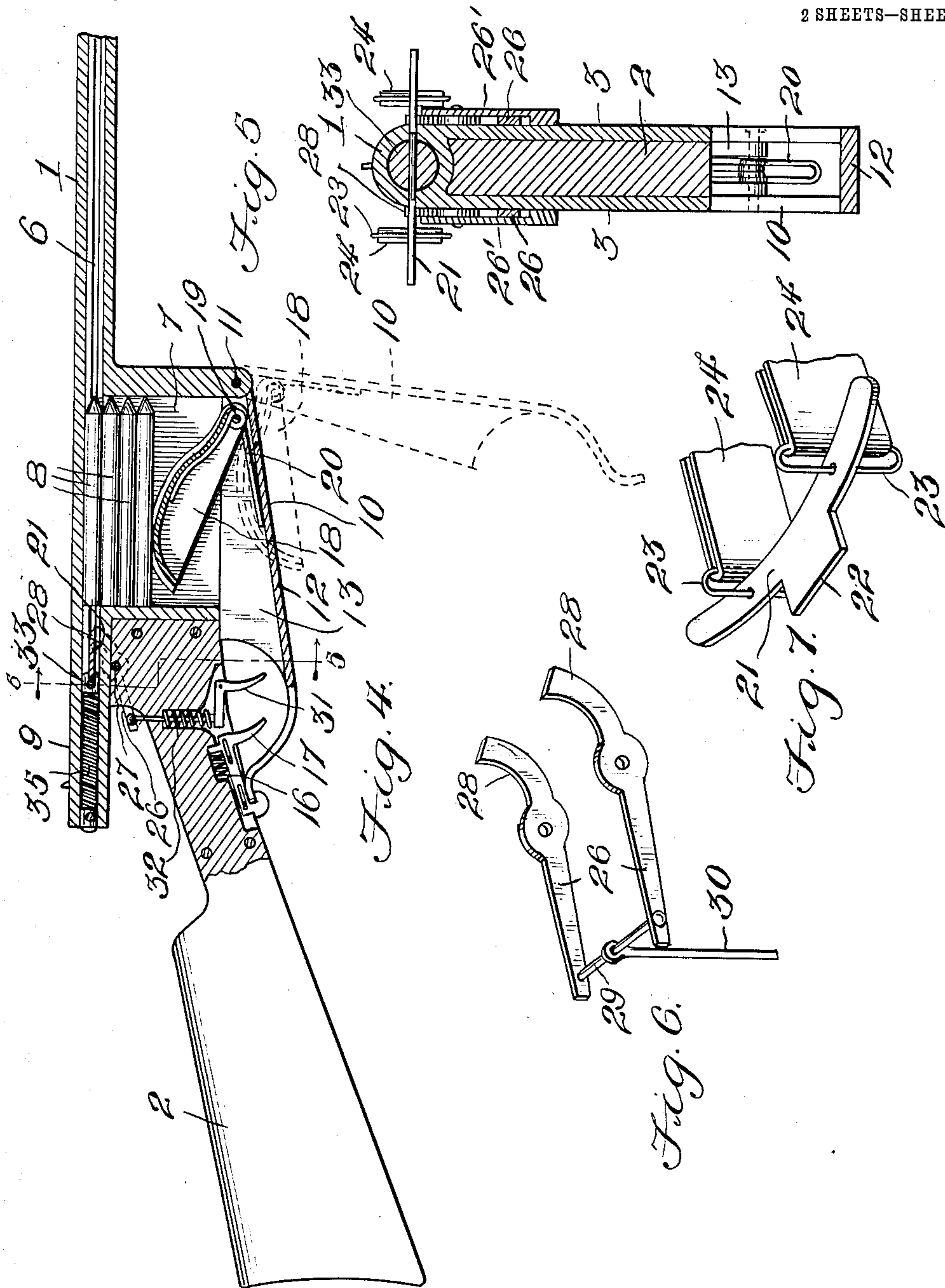
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# UNITED STATES PATENT OFFICE.

JESSE B. GRIFFITH, OF EL PASO, TEXAS.

## TOY GUN.

No. 918,444.

Specification of Letters Patent.

Patented April 13, 1909.

Application filed January 28, 1908. Serial No. 413,086.

*To all whom it may concern:*

Be it known that I, JESSE B. GRIFFITH, a citizen of the United States, residing at El Paso, in the county of El Paso and State of Texas, have invented new and useful Improvements in Toy Guns, of which the following is a specification.

This invention relates to an improved toy gun, the object of the invention being to provide a magazine sling gun in which a number of arrows or other projectiles may be stored and successively fed for propulsion into the bore of the barrel at the breech, the construction being such as to permit manufacture of the gun at a comparatively low cost and to secure accuracy in propelling projectiles of sufficient size and with sufficient force for shooting small fish and game and for target practice.

With these and other objects in view, the invention consists of the features of construction, combination and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawings, in which:

Figure 1 is a side elevation of a toy magazine gun embodying my invention. Fig. 2 is a top plan view of the same. Fig. 3 is a sectional view taken longitudinally through the rear end of the barrel and the breech, showing the position of the parts before the sling is set for action. Fig. 4 is a similar section through the gun, showing the sling set and one of the projectiles fed into the barrel for discharge, and also showing in dotted lines the guard and feeder swung down to open the magazine. Fig. 5 is a transverse section on line 5—5 of Fig. 4. Fig. 6 is a perspective view of the detent for holding the sling in set position. Fig. 7 is a similar view of the cross-bar and rear ends of the straps of the sling.

Referring to the drawings, 1 designates the barrel, 2 the stock, and 3 the breech of the gun, which may be of any preferred construction. The barrel is provided with the usual front and rear sights 4 and 5 and is formed in its sides with longitudinal slots 6 extending a portion of the length thereof for the purpose hereinafter described. Within the breech is formed a magazine chamber 7 of sufficient size to receive a number of projectiles 8, which may be in the form of arrows or of any other suitable form, and are arranged to lie one above the other. The magazine opens at its upper end

into the bore of the barrel, which latter is provided in rear of the point of communication with the magazine with an extension 9 overhanging the grip of the stock. A channeled guard or lever 10 is provided to close the lower open end of the magazine and is pivoted at its forward end to a pin 11 mounted upon the lower front wall of the magazine. As shown, the guard comprises a base or body wall 12 having side flanges 13 whose upper edges are adapted to abut against the lower edges of the side walls of the magazine and are inclined to allow the bottom 12 to extend at a downward and rearward inclination, the rear end of said guard lever being provided with a curved extension 14 simulating the construction of the ordinary finger guard. This extension 14 is adapted to be engaged by the hooked end of a latch 15 slidably mounted in a recess in the lower end of the stock and normally forced forward into locking position by a spring 16. A finger piece 17 is connected with the latch and lies in the space inclosed by the part 14, whereby the latch may be retracted to permit the guard to be swung downward, as shown in dotted lines in Fig. 4, to expose the opening in the magazine, so that the latter may be recharged.

A feeder 18 is pivotally mounted at its forward end upon the lever, as shown at 19, and is of concavo-convex form, its convex or rounded surface being upwardly disposed to bear against and form a support for the body of projectiles 8. When the magazine is full, the feeder normally lies folded within the guard between the side flanges 13, and is gradually forced upward therefrom as the projectiles are successively fed into the barrel, the curved surface of the feeder adapting it to exert a direct upward pressure on a central vertical line. By this means the swinging movement of the feeder is prevented from shifting the projectiles in a forward direction, and as the curved surface of the feeder rides easily in contact with the lower projectile canting or tilting and binding of the projectiles in the magazine is obviated. The feeder is forced upward by a spring 20 having a coiled portion encircling the pivot pin 19 and arms respectively bearing upon the underside of the body of the feeder and the body plate 12 of the guard lever.

The projectiles are adapted to be propelled from the barrel 1 by means of a sling comprising a cross-bar or piece 21 having a cen-



tral projecting tongue 22. Beyond this tongue, the ends of the bar project from the bore of the barrel outward through the slot 6, in which they are adapted to slide and are  
 5 connected beyond the sides of the barrel with rings or loops 23 upon the rear ends of elastic straps 24, which are suitably secured at their forward ends to the sides of the barrel, as indicated at 25. The cross-bar 21 is adapted  
 10 to be drawn rearwardly to a point in rear of the line of the magazine to place the elastic straps under tension, to be held in such position until it is desired to discharge the projectile in the barrel, and to be released so  
 15 that the cross-bar will be drawn forward with force by the contraction of the elastic straps 24 and expel the projectile with great speed. The ends of the cross-bar form arms by which said bar may be conveniently drawn  
 20 backward to set the sling for use, and these arms are adapted to be engaged by a pivoted detent comprising a pair of levers 26 disposed on opposite sides of the breech and pivotally mounted upon suitable pivot supports 27,  
 25 the forward ends of said levers having curved dogs 28 to engage the ends of the bar 21 and the rear ends of the levers being connected by a cross pin 29 connected by a pin or link 30 with a trigger 31 arranged adjacent to and  
 30 in advance of the latch finger 17. The pin or link 30 is slidable vertically in the grip of the stock, which is recessed to receive a coil spring 32 whereby the trigger and detent are normally held in engaging position. The  
 35 ends of the dogs 28 are curved or beveled to allow the arms of the bar 21 to slide thereover and into locking engagement with said dogs.

In charging the magazine, it will of course  
 40 be understood that the latch 15 is retracted and the guard lever swung downward, carrying with it the feeder 18, whereupon the magazine may be filled with projectiles, after which the guard lever is closed, thus bringing  
 45 the feeder to bear upon the lowermost projectile. The spring pressure of the feeder forces the body of projectiles upward, so that the uppermost one, after the sling has been set, will be forced into the bore of the barrel  
 50 and in position for discharge. In order to prevent the feed of a projectile into the bore before the sling or propelling device is set, an automatically-operated device is provided to close the bore above the magazine. This device is adapted to be retracted by the cross-  
 55 bar of the sling when the latter is set, and comprises a follower 33 having a groove or recess 34 to receive the tongue 22 and provided upon its rear face with a pin or projection to engage the coil of a coil spring 35, the  
 60 rear coil of which is adapted to engage a similar pin or projection upon a plug or stopper 36 closing the rear end of the bore. When the cross-bar 21 is drawn rearwardly, the  
 65 tongue 22 engages the follower and forces the

same back into the extension 9 of the barrel in which the spring 35 is compressed, the said cross-bar on its release by the actuation of the trigger being propelled forward by the combined energy of the sling straps and expansion of the spring 35, which moves forward to the position shown in Fig. 3. As a result, communication between the bore and magazine will be closed until the sling or propulsion device is again set, thus preventing a  
 75 projectile from being fed into the bore and interfering with the resetting of the sling.

It will be seen from the foregoing description that the sling may be readily and conveniently set and that the bore will be charged  
 80 with projectiles by the action of the automatic feeder until the store of projectiles is exhausted, and that upon pulling the trigger 31 the dogs 28 will be depressed, thus releasing the sling to effect the discharge of the  
 85 projectiles. Communication between the magazine and barrel will then be closed until the sling is again reset, when the feeder will force a projectile up into the barrel in advance of the bar 21. The elastic straps of the sling  
 90 may be made of any desired length, and any suitable equivalent therefor may be employed, and through the conjoint action of these straps and the spring 35 the projectile will be expelled with considerable force and  
 95 accuracy. The projectiles may vary in size and character for shooting game or for target work, and the gun will be found useful for shooting small game at short range.

As the construction is simple, it will be seen  
 100 that the gun may be manufactured at a comparatively low cost and contains few parts that are liable to readily get out of order.

The detent levers 26 are preferably disposed between the sides of the breech and  
 105 plates 26' detachably secured thereto, said plates forming covers to protect the detent, while permitting of its ready removal for repairs or substitution of new parts when occasion requires.  
 110

Having thus fully described the invention, what is claimed as new is:—

1. A toy gun embodying a barrel, a magazine chamber in communication at its upper end with the barrel, a pivoted, channeled  
 115 cover plate for closing the lower end of the magazine, projectile propelling means operating in the barrel, trigger mechanism therefor, a transverse pivot pin extending between the side walls of the channeled cover plate, a  
 120 concavo-convex feeder pivotally mounted at its forward end on said pin to fold into the channeled cover plate and to swing upward into the magazine, said feeder having its convex surface uppermost to engage the projectiles in the magazine, and a spring coiled about said pivot pin and having arms bearing respectively on the cover plate and feeder.  
 125

2. A toy gun embodying a slotted barrel  
 130



open at its rear end, a closure for said open rear end, a self-projected sling operating in the barrel and including a cross-bar movable in the slotted portion thereof and provided with a tongue or projection, a trigger mechanism therefor, a magazine in communication at its upper end with the barrel, an automatic feeder operating therein, a follower movable in the barrel in rear of said cross-bar and having a recess to receive said tongue or projection, and a longitudinally expansible spring arranged in the barrel between said closure and follower, said spring being insertible and removable through the open rear end of the barrel when the said closure is removed, and being adapted to be compressed by the follower when the sling is set in rear of the magazine and upon the projection of said propelling means to expand across the top of the magazine and close communication between the same and the barrel.

3. A toy gun embodying a slotted barrel, a self-propelled sling arranged to travel therein and including a cross-bar having its ends projecting beyond opposite sides of the barrel, a pair of coaxially pivoted dogs having upwardly extending hooked forward ends to engage the ends of the cross-bar and hold the sling set for operation, a connection between said dogs in rear of their fulcrumed portions, a pin vertically slidable in the stock of the gun and engaging said connection, a spring acting upon said pin to normally hold the dogs projected, and a trigger operated to move said pin against the resistance of the spring to retract the dogs.

In testimony whereof I affix my signature in presence of two witnesses.

JESSE B. GRIFFITH.

Witnesses:

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J. S. JEFFRESS.