

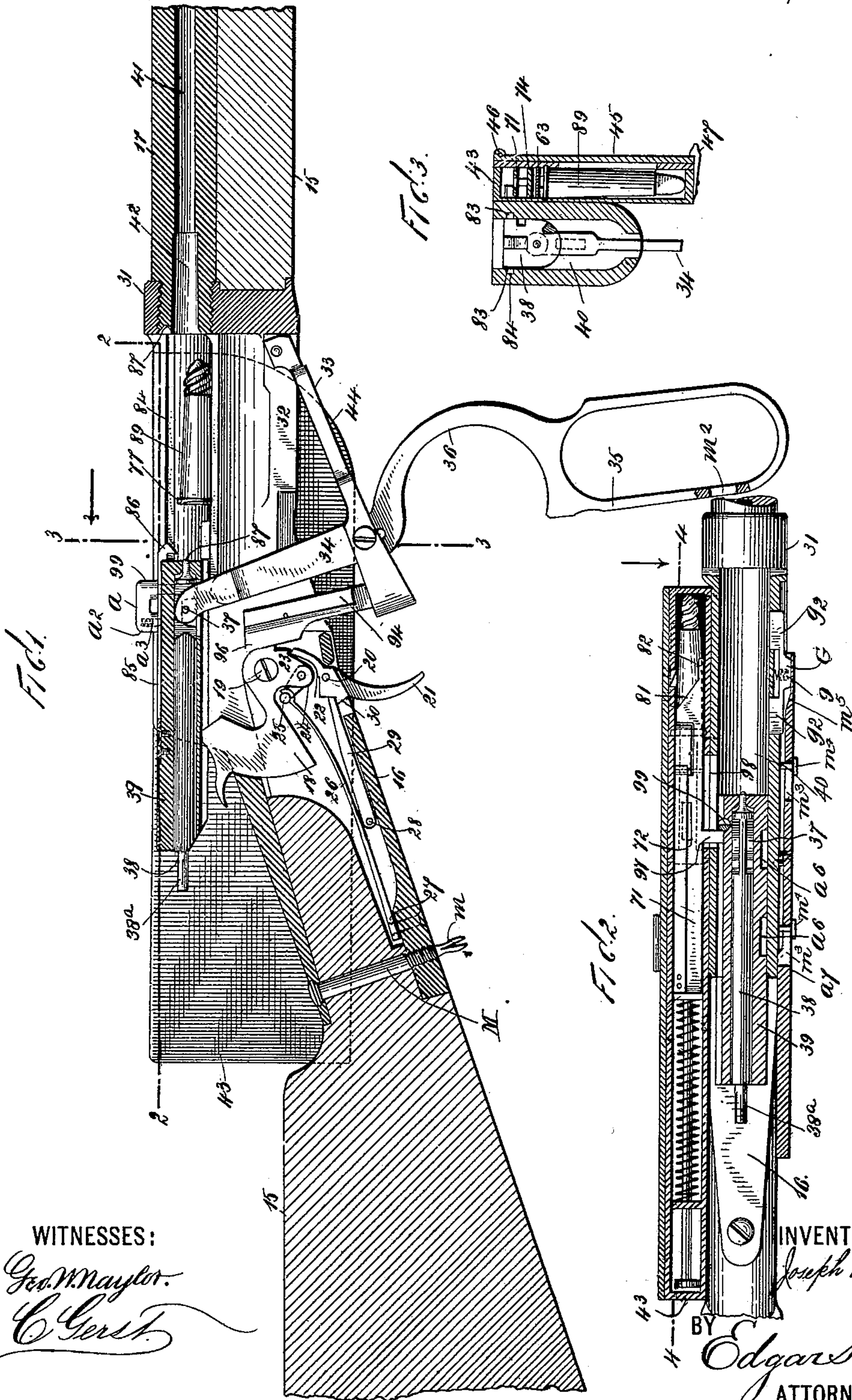
(No Model.)

4 Sheets—Sheet 1.

J. HARLE.  
MAGAZINE FIREARM.

No. 601,097.

Patented Mar. 22, 1898.



WITNESSES:

*Geo. M. Naylor.*

*C. Gerst.*

INVENTOR

*Joseph Harle.*

BY

*Edgar Sater.*  
ATTORNEYS.



(No Model.)

4 Sheets—Sheet 2.

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Fig. 1a.

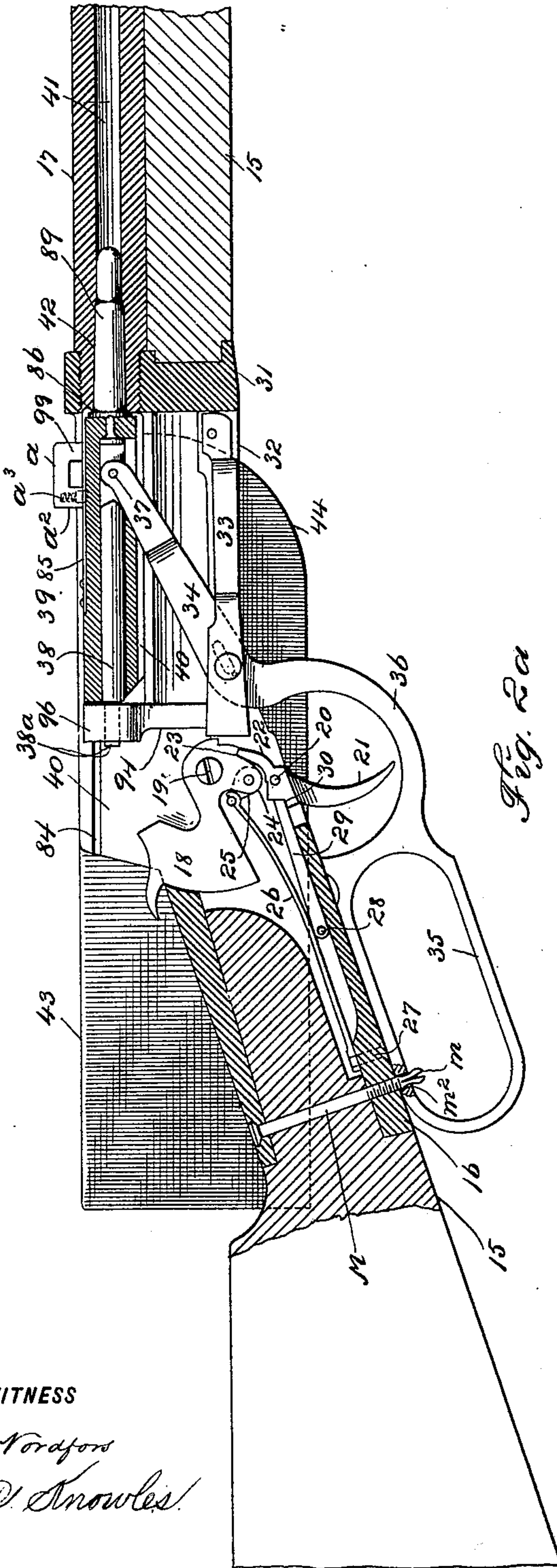
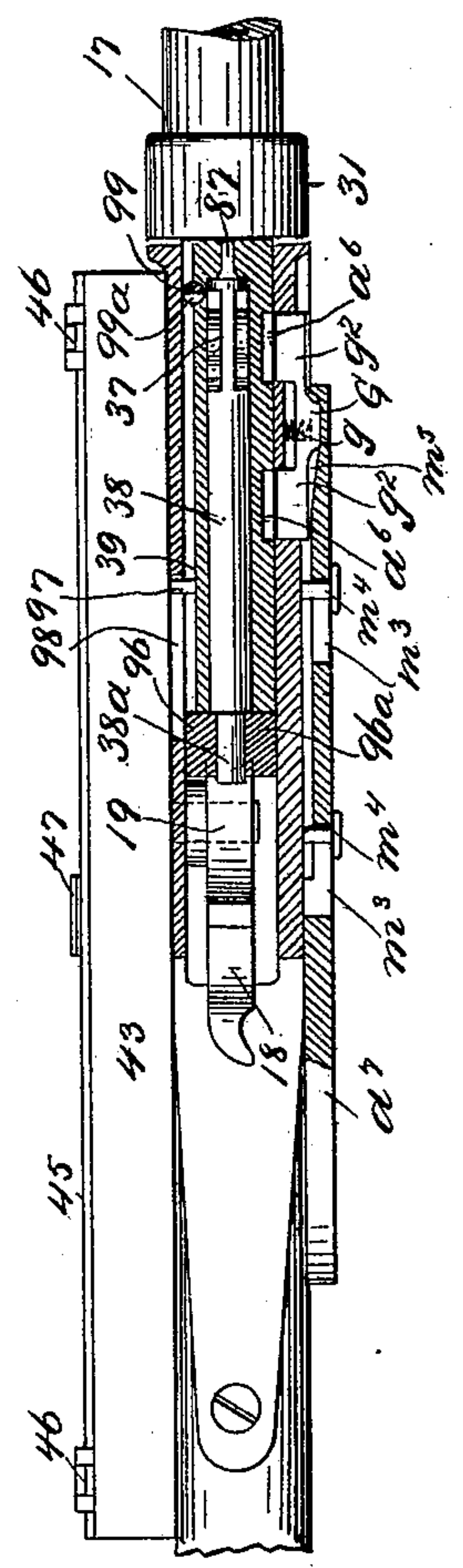


Fig. 2a



WITNESS  
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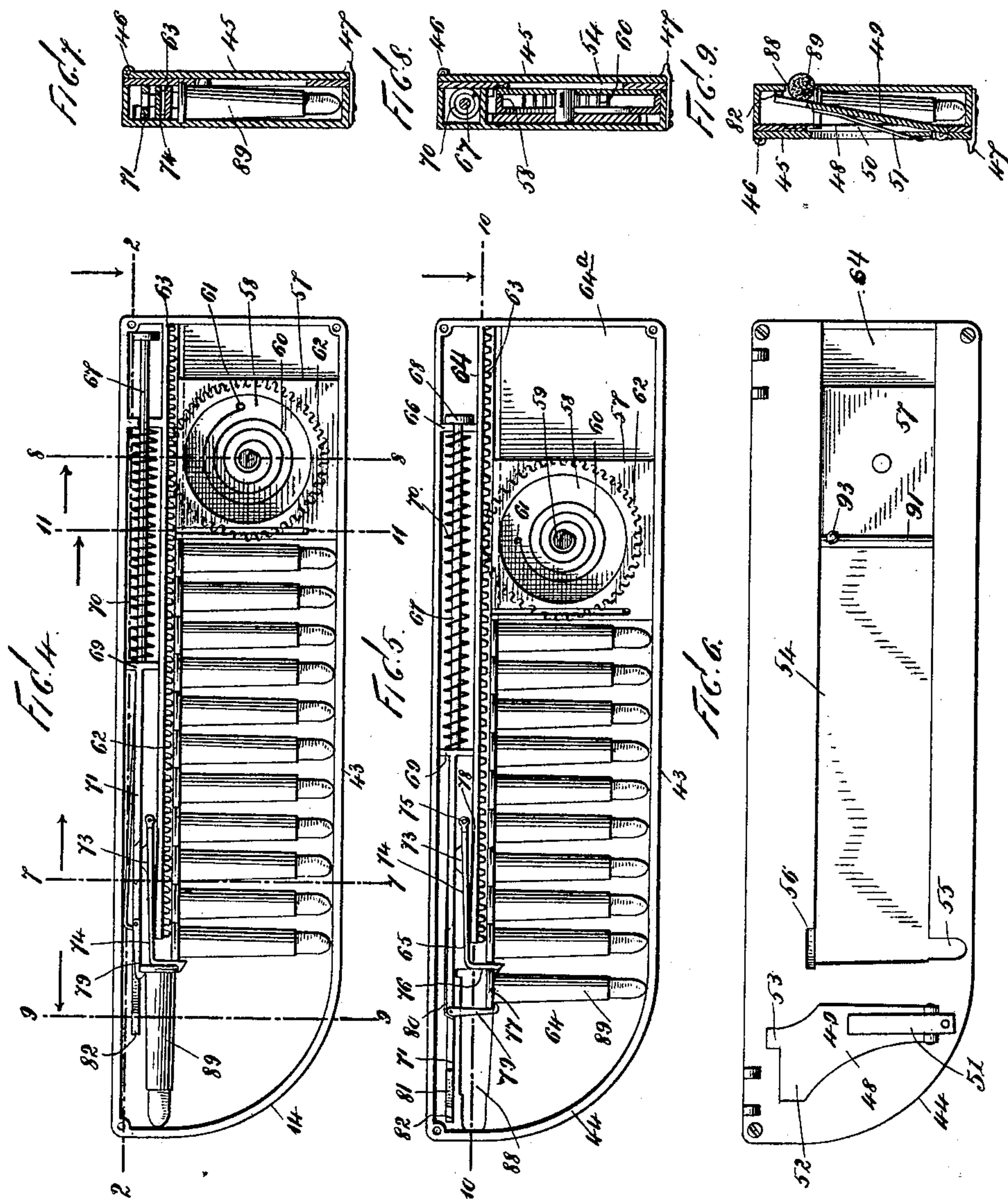
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4 Sheets—Sheet 3.

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WITNESSES:

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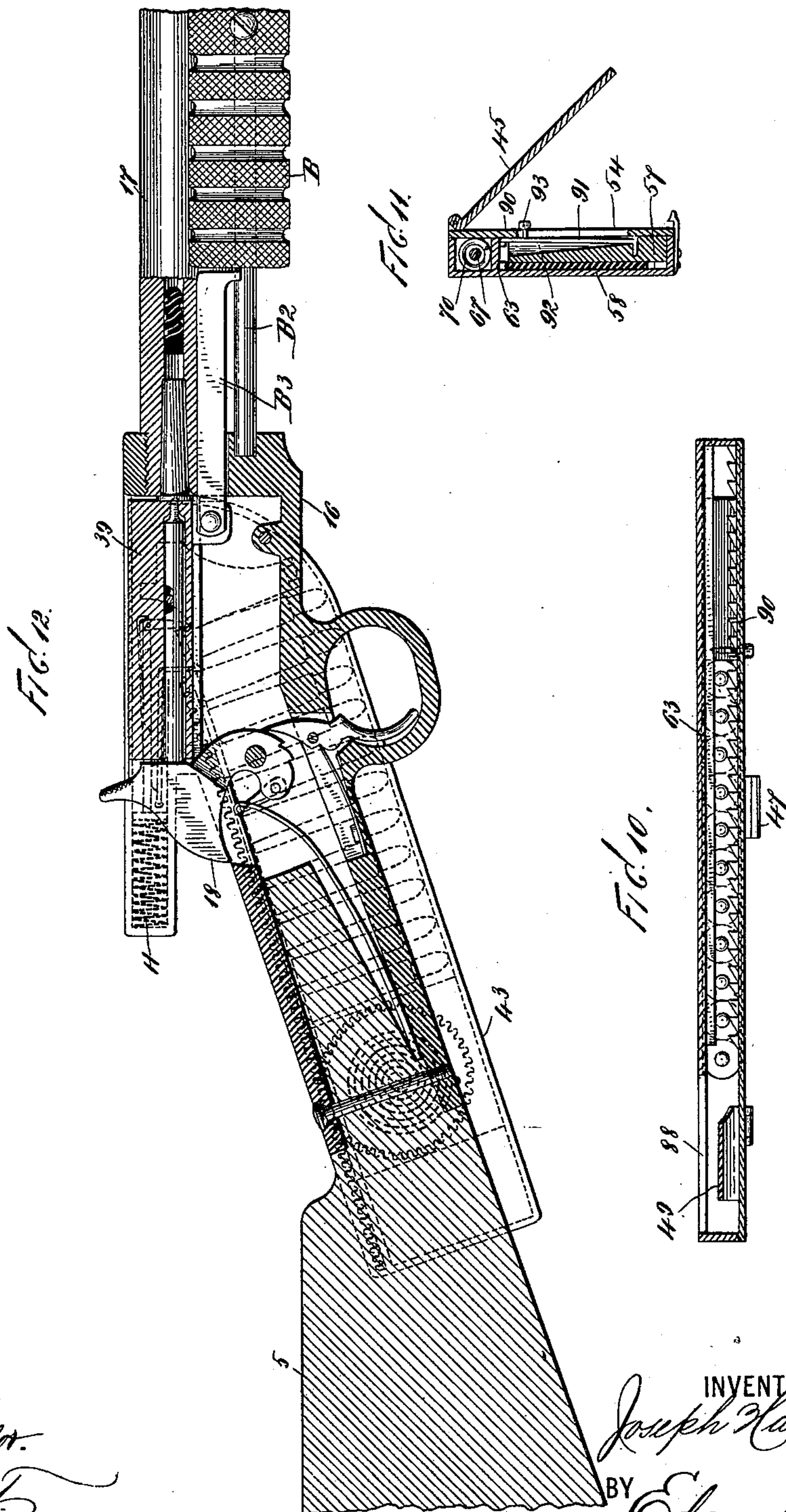
(No Model.)

4 Sheets—Sheet 4.

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MAGAZINE FIREARM.

No. 601,097.

Patented Mar. 22, 1898.



WITNESSES:  
*Geo. M. Naylor.*  
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INVENTOR  
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BY *Edgar Tate & Co.*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

JOSEPH HARLE, OF VANCOUVER, WASHINGTON.

## MAGAZINE-FIREARM.

SPECIFICATION forming part of Letters Patent No. 601,097, dated March 22, 1898.

Application filed February 25, 1897. Serial No. 624,983. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH HARLE, a citizen of the United States, residing at Vancouver, in the county of Clarke and State of Washington, have invented certain new and useful Improvements in Magazine-Guns, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to firearms, and particularly to what are known as "magazine-guns;" and the object of the invention is to provide an improved gun of this class which is simple in construction and operation and the operative mechanism of which is strong and durable and less liable to overheat and to be injuriously affected in the operation thereof than is the case with guns of this class as usually constructed; and with this and other objects in view the invention consists in the construction, combination, and arrangement of parts hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a longitudinal vertical section of the operative mechanism of the lock of my improved gun, showing the magazine in full lines; Fig. 1<sup>a</sup>, a view similar to Fig. 1, showing the parts in a different position; Fig. 2<sup>a</sup>, a sectional plan view of the construction shown in Fig. 1<sup>a</sup>, the magazine being shown in full lines; Fig. 2, a section on the line 2 2 of Fig. 1 and also on the line 2 2 of Fig. 4, showing a part of the operative mechanism of the magazine and also part of the firing mechanism; Fig. 3, a cross-section on the line 3 3 of Fig. 1; Fig. 4, a longitudinal section of the magazine on the line 4 4 of Fig. 2; Fig. 5, a view of the magazine similar to that shown in Fig. 4, showing the parts in a different position; Fig. 6, a side view of the magazine with the hinged door thereof removed; Fig. 7, a cross-section on the line 7 7 of Fig. 4; Fig. 8, a cross-section on the line 8 8 of Fig. 4; Fig. 9, a cross-section on the line 9 9 of Fig. 4; Fig. 10, a longitudinal section on the line 10 10 of Fig. 5; Fig. 11, a cross-section on the line 11 11 of Fig. 4; Fig.

12, a view similar to Fig. 1, showing a modified form of construction.

In the drawings forming part of this specification the separate parts of my improvement are designated by letters and numerals of reference in each of the views, and in the practice of my invention I employ the usual stock 15, the lock-frame 16, and the barrel 17, beneath which the stock 15 is projected.

Mounted within the lock-frame in the usual manner is the hammer 18, which is pivoted on a screw 19 and beneath which is pivoted at 20 the trigger 21, which is provided with an upwardly-directed prong 22, which operates in connection with notches or recesses 23 on the lower side of the head of the hammer, and the head of the hammer is provided with a backwardly-directed projection 24, with which is connected a link or similar device 25, beneath which operates a spring 26, which is secured to the lock-frame at 27, and connected with the said frame below the spring 26, as shown at 28, is a spring 29, the free end of which bears on a shoulder 30, formed on the trigger 21.

The central portion of the lock-frame is open from the point at which the spring 26 is secured forwardly to the cylindrical head 31 of the said frame, with which the barrel 17 is connected, and the lower side of the said lock-frame rearwardly of the cylindrical head 31 is provided with an open slot 32, in the forward end of which is pivoted an arm 33, to which is pivoted a lever 34, one arm of which projects downwardly and is provided with an oblong open head 35 and with a segmental curve or bend 36, and the shorter arm of which projects upwardly through the opening in the lock-frame 16 and is pivotally connected at 37 with the firing-pin 38 and the breech-block.

The firing-pin 38 is mounted in the breech-block 39, which is adapted to move in a longitudinal chamber 40, formed in the upper side of the lock-frame, and the forward end of which communicates with the bore 41 of the barrel 17, which is enlarged at its breech end, as shown at 42, and in the bottom of the longitudinal chamber 40, in which the breech-block 39 moves, is a slot through which the upper end of the lever 34 passes.



The magazine 43 is shown in Figs. 2 to 11, inclusive, and consists of an oblong rectangular casing which is secured to or mounted on the lock-frame 13, at the left-hand side thereof, and the forward end of which is upwardly curved or circular in form, as shown at 44, and said magazine is provided at its outer side with a hinged door 45, and said door is hinged to the upper side of said casing, as shown at 46, and the lower side thereof is adapted to be held in position by a spring-catch 47, which is secured to the lower side of the magazine, and formed in the forward end of the outside casing is an irregular opening 48, in which is hinged a door 49, and the door of the magazine is provided with an opening 50, which corresponds with the opening 48 in the outer side wall of the magazine, and secured to the casing of the magazine, behind and below the hinge of the door 49, is a spring 51, which is adapted to bear on said door 49, this construction being best shown in Figs. 6 and 9, and the upper end of the door 49 is provided with a forwardly-directed projection 52 and with an upwardly-directed lug 53, and formed in the outer wall of the magazine is a longitudinal opening 54, the forward end of which is shaped to correspond with the form of a cartridge, the lower side of said opening being provided with a downwardly-directed extension 55, through which the ball or projectile of the cartridge may pass, and the upper side wall of said opening 54 being provided with a corresponding circular cavity or recess 56, through which the rim or flange of the cartridge-shell may pass.

Mounted in the magazine, near the rear end thereof, is a sliding rectangular frame 57, in which is mounted a spring-drum 58, which is loosely mounted on a shaft 59, to which is secured a spring 60, one end of which is secured to the drum, as shown at 61, this construction being best shown in Figs. 4 and 5, and the drum 58 is provided at its perimeter with gear-teeth 62, which are adapted to operate in connection with a rack-bar 63, mounted longitudinally of the magazine, and by means of which the magazine is divided into two separate longitudinal compartments 64 and 64<sup>a</sup>, which are in communication at the forward end thereof by reason of the fact that the rack-bar terminates at 65.

It will be observed that Figs. 4 and 5 are the same, with the exception that the operative parts of the magazine are shown in a different position, and the longitudinal compartment or chamber 64 is provided adjacent to the rear end thereof with a partition-plate 66, and mounted in said longitudinal chamber forwardly of said partition-plate is a rod 67, the rear end of which passes through said partition-plate and is provided with a head 68, and said rod is provided at its forward end with a cross-head 69, and mounted between said cross-head and the partition-plate 66 is a spring 70, which is adapted to force the rod 67 forwardly, and secured to or formed on the

cross-head 69 of the rod 67 is a forwardly-projecting arm or plate 71, and said rod and arm or plate are shown in their rearmost position in Fig. 4 and in their foremost position in Fig. 5.

The arm or plate 71 is provided about midway thereof with a longitudinal slot 72, which is best shown in Fig. 2 and which is adapted to receive a lug or projection 73, which is formed on a lever 74, which is pivoted to the side of the magazine at 75, this construction being best shown in Figs. 4 and 5, and the lever 74 projects forwardly and is provided with a downwardly-directed dog 76, which is adapted to grasp one side of the rim or flange of a cartridge, as shown at 77, and beneath the lever 74 is a spring 78, which operates to force said lever upwardly. The arm or plate 71 is also provided between the outer end thereof and the slot 72 with a pivoted dog 79, which is adapted to grasp the opposite side of the flange or rim of the cartridge, and said arm or plate 71 is also provided with a spring 80, which bears upon the head of the dog 79 and operates the same.

The outer end of the plate or arm 71 is cut away at an angle, as shown at 81 in Figs. 2, 4, and 5, and is also provided with a forwardly-directed projection 82 at the inner side thereof, and this forwardly-directed projection 82 of said arm operates in connection with the upwardly-directed lug or projection 53 on the hinged door 49 of the magazine, as shown in Fig. 9 and as will be hereinafter described.

The sliding breech-block 39 is provided on its opposite sides, as shown in Fig. 3, with longitudinal ribs or lugs or projections 83, which move in corresponding longitudinal grooves 84 in the sides of the chamber 40, in which said breech-block is mounted, and secured to the upper side of the breech-block is a spring 85, which is provided at its forward end with a downwardly-directed hook 86, and the end of this spring is wedge-shaped in form and adapted to enter a corresponding cavity 87, formed in the end of the barrel of the gun, as shown in Fig. 1, and the hook 86 at the end of said spring is adapted to engage with the flange or rim 77 of the cartridge, so as to remove the same from the barrel of the gun after it has been discharged, and the firing-pin 38 is also provided at its forward end with a pointed projection 87, which projects through the end of the breech-block 39 and which operates in discharging the cartridge, as hereinafter described.

The inner side of the magazine adjacent to its forward end is provided with a slot or opening 88, as shown in Fig. 5, which is similar in form to the cartridge employed, and this slot or opening is formed opposite the door 49, and said door 49 serves to project the cartridge from the magazine into the space or chamber between the breech-block when the latter is withdrawn, as shown in Fig. 1, and the rear end of the barrel of the gun, a cartridge being shown in this position in said Fig. 1, and it will be understood that an open-



ing similar to the slot or opening 88 in the magazine is also formed in the side of the frame 16.

The cartridges are indicated at 89, and 5 formed on the inner side of the outer wall of the magazine and above the longitudinal slot or opening 54 are ratchet-teeth 90, as shown in Fig. 10, these ratchet-teeth extending the full length of the rack-bar 63, and secured to 10 the frame 57, in which the drum 58 is mounted, is a spring 91, which springs into a vertical slot 92, formed in said frame, and the upper end of which operates in connection with the ratchet-teeth 90, and said spring is provided near its upper end with an outwardly-directed headed pin or projection 93.

The operation of this form of construction will be readily understood from the foregoing description when taken in connection 20 with the accompanying drawings and the following statement thereof.

The rear end of the arm 33, with which the lever 34 is connected, is provided with an upwardly-directed supplemental arm 94, as 25 shown in Fig. 1, which is provided with a head 96, and in the normal position of the lever 34 the lower end thereof is drawn backwardly against the lower side of the stock 15 or the lock-frame 16, and in this position 30 of said lever the trigger 21 enters the segmental curve or bend 36 in said lever, and the head 96 of the supplemental arm 94 projects upwardly into the lock-frame 16, as will be readily understood and as shown in Fig. 1.

35 The object of the arm 94 of the lever 33 is to lock the breech-block and firing-pin and prevent the recoil thereof, and the head 96 of the arm 94 is slotted longitudinally, as shown at 96<sup>a</sup> in Fig. 2<sup>a</sup>, and the firing-pin 38 40 is provided with a cylindrical extension 38<sup>a</sup>, which passes through the slotted head 96 of the arm 94, as is also shown in Fig. 2<sup>a</sup>, and by means of this construction when the parts are thrown into the position shown in 45 Figs. 1<sup>a</sup> and 2<sup>a</sup> the breech-block and firing-pin are locked against recoil and the separate parts of the lock are in position for firing, and when the head 35 of the lever 34 is thrown forwardly into the position shown in 50 Fig. 1 the backward movement of the breech-block will again set the hammer, as will be readily understood. I also provide devices for securing the lever 34 or the head 35 thereof in the closed position or that shown in 55 Fig. 1<sup>a</sup>, and these devices consist of a bolt M, which is passed through the rear portion of the stock of the gun or through the breech-casing, as shown in Figs. 1 and 1<sup>a</sup>, and said bolt or screw is provided with a spring-head 60 m, which passes through an opening m<sup>2</sup> in the head 35 of the lever 34. This device is well adapted to serve for the purpose specified, and the head 35 of the lever 34 may be easily depressed by applying force thereto.

65 When the magazine is empty, the box or casing 57, in which the drum 58 is mounted, occupies the forward end thereof, the spring

60 unwinding and propelling said box or casing along the magazine up to the forward end of the slot or opening 54 in the side thereof, 70 and the cartridges are passed through the forward end of said slot or opening one at a time, and in this operation the frame or casing 57 is pressed backwardly until it assumes the position shown in Fig. 4, the cartridges 75 being inserted one at a time, and in this operation the spring 60 is also wound up.

When the necessary number of cartridges have been inserted, the door 45 of the magazine is closed, and this operation forces the 80 hinged door 48 inwardly, as shown in Fig. 9, and prevents the cartridges from being pushed forwardly beyond said door, and in filling the magazine with cartridges, as above described, the spring 91 must be pressed backwardly by 85 means of the pin 93, so as to disengage said spring from the ratchet-teeth 90 and thus allow the box or casing 57 to move backwardly in the magazine.

Secured to the arm or plate 71 of the maga- 90 zine is a lug or projection 97, which projects through a slot 98, formed in the side of the magazine, and through a corresponding slot in the side wall of the chamber 40, in which the breech-block moves, and into a longitu- 95 dinal slot 28<sup>a</sup>, formed in the side wall of the breech-block, and mounted in said side wall of the breech-block, near the forward end thereof, is a revoluble pin 99, which is provided with a transverse slot 99<sup>a</sup> and which is 100 also provided at its upper end with an arm  $\alpha$ , which is provided with a downwardly-directed extension  $\alpha^2$ , in which is mounted a spring-operated pin  $\alpha^3$ , and this spring-operated pin  $\alpha^3$  is adapted to hold the revoluble pin 99 in 105 any desired position, it being forced into a cavity formed in the top of the breech-block, and in the normal position of the pin 99 it is turned into the position shown in Fig. 2, when the lug or projection 97 on the plate or arm 110 71 of the magazine will engage therewith. In this position of the parts whenever it is desired to fire the gun the lever 34 is thrown downwardly into the position shown in Fig. 1, and this operation throws backwardly the 115 breech-block 39 into the position shown in said figure, and the breech-block 39 operates the lug or projection 97 on the arm or plate 71, so as to force backwardly the spring-operated rod 67 into the position shown in Fig. 4, and 120 in this operation of said rod one of the cartridges is thrown up into the position shown in said Fig. 4 by means of the dog 76 on the lever 74 and the spring-operated pawl or dog 79, which is pivoted to the arm or plate 71, 125 and in this position of the cartridge it is directly opposite the slot or opening 88 in the magazine and is forced through said slot or opening by the spring 51, which presses on the hinged door 49 and drops into the posi- 130 tion shown in Fig. 1. The lever 34 is then swung backwardly into the position shown in Fig. 1<sup>a</sup>, adjacent to the stock 15 or the lock-frame 16, and the gun is fired by pulling on



the trigger 21 in the usual manner, the hammer 18, which is released by the trigger 21, striking the outer end of the firing-pin 38 and serving to discharge the cartridge, which has  
 5 been forced into position in the end of the barrel of the gun by the backward movement of the lever 34. When the cartridge has been forced into the barrel of the gun by the backward movement of the lever 34, the hook 86  
 10 at the end of the spring 85 engages with the rim or flange 77 of the cartridge, and in the next operation of said lever, by which it is thrown downwardly and the breech-block backwardly, as shown in said Fig. 1, the empty  
 15 cartridge is withdrawn from the barrel of the gun, as will be readily understood, and this operation may be repeated as rapidly as desired until all of the cartridges are discharged. When the lever 34 is drawn backwardly adjacent to the stock of the gun, as shown in  
 20 Fig. 1<sup>a</sup>, the cartridge-operating devices are in the position shown in Fig. 4; but when said lever is thrown forwardly, as shown in Fig. 1, the cartridge-operating devices within the  
 25 magazine are in the position shown in Fig. 5, and as soon as the cartridge is thrown into the position shown in Fig. 4 the hinged door 49 operates to force the cartridge through the opening 88 into the position shown in Fig.  
 30 1, in which position it is forced into the barrel of the gun by the backward movement of the lever 34 and the forward movement of the breech-block.

By turning the pin 99 so that the lug or  
 35 projection 97 on the plate or arm 71 will pass through the notch or recess formed in said pin it will be apparent that the operating devices within the magazine will not be actuated by the lever 34 and the sliding breech-block, and when this is done the cartridges  
 40 may be placed in the receptacle in front of the breech-block by hand, as will be readily understood, and in Fig. 2 I have shown devices which are intended to prevent the operation of the gun or of the lever 34, and these  
 45 devices consist of transverse notches or recesses  $a^6$ , which are formed in the side of the breech-block adjacent to its forward end, and a sliding plate or similar device  $a^7$ , which is  
 50 mounted on the side of the lock-frame 16 opposite the breech-block and which is provided at its forward end with a cross-head G, between which and the wall of the chamber in which the breech-block is mounted is a spring  
 55  $g$ , and the cross-head G is provided at each end with lugs or projections  $g^2$ , which are adapted to enter corresponding openings in the wall of said chamber, and when the lever 34 is swung backwardly and the breech-block  
 60 39 forced forwardly the lugs or projections  $g^2$  will enter the notches or recesses  $a^6$  and prevent the operation of the lever 34. The sliding plate  $a^7$  is provided with longitudinal slots  $m^3$ , through which are passed headed  
 65 pins  $m^4$ , secured to or in the side wall of the casing in which the breech-block is mounted, and said pins hold the said plate in position

while permitting the same to move longitudinally, and the forward end of said plate is provided with a wedge-shaped slot or groove  
 70  $m^5$ , in which the cross-head G works, and by sliding said plate  $a^7$  forwardly the cross-head G is forced inwardly, as hereinbefore described, against the operation of the spring  
 75  $g$ , so that the lugs or projections  $g^2$  will engage with the breech-block. This form of construction is the one preferred by me and is well adapted to accomplish the result for which it is intended, and it will be apparent that changes in and modifications of the de-  
 80 tails of said construction may be made without departing from the spirit of my invention or sacrificing its advantages.

In Fig. 12 I have shown a modification in which I employ a sliding grip-piece B, which  
 85 is adapted to slide on a shaft  $B^2$ , secured to the lock-frame 16, and secured to this grip-piece is a backwardly-directed arm  $B^3$ , which passes through the end of the said lock-frame and which is connected with the breech-block  
 90 39. The magazine 43 in this form of construction is exactly the same in construction and operation as that hereinbefore described, the only difference being in the location thereof, and in this form of construction the maga-  
 95 zine is arranged at the side of the lock-frame 16 and extends downwardly at an angle to the frame in which the breech-block is mounted, the latter being parallel with the barrel of the gun, as shown in Figs. 1 and 2, while the  
 100 magazine extends downwardly and backwardly at an angle thereto, and behind the breech-block is mounted a spiral spring H, which operates to force said block forwardly. The mechanism which is connected with the  
 105 hammer 18 is also of the same form and construction, and the operation will be the same as that hereinbefore described.

Having fully described my invention, I claim as new and desire to secure by Letters  
 110 Patent—

1. A magazine-gun provided with the usual lock-frame in the upper side of which is formed a longitudinal chamber, a breech-block mounted in said chamber, and longitudinally  
 115 movable therein, a firing-pin mounted in said breech-block, and longitudinally movable therein, a lever pivotally connected with said breech-block, and extending downwardly through the bottom of said frame, said lever  
 120 being pivotally connected with a pivoted arm which is provided at its rear end with a supplemental arm which projects upwardly in said frame, and which is adapted to lock the breech-block and firing-pin against recoil,  
 125 and a magazine which is mounted adjacent to one side of said frame and which is adapted to receive cartridges, said magazine being provided with devices which are operated by said lever so as to project the cartridges in  
 130 front of the breech-block at each forward movement of said lever, and said frame being provided opposite said magazine with a locking device which is adapted to operate



in connection with the breech-block so as to prevent the operation thereof, said locking device consisting of a movable or locking plate, and a cross-head operated thereby, and  
 5 which is provided with inwardly-directed lugs or projections which pass through openings in the side of the frame, and which are adapted to engage with notches or recesses formed in the breech-block, substantially as  
 10 shown and described.

2. A magazine-gun provided with a longitudinally-movable breech-block, which is mounted in a longitudinal chamber formed in the lock-frame, a firing-pin mounted  
 15 therein, an arm pivotally mounted below said breech-block, and provided with an upwardly-directed extension, a lever pivotally connected with said breech-block, and provided with a downwardly-directed extension which  
 20 passes through the frame of the lock, a magazine connected with one side of said frame, and provided with devices which are adapted to be operated by said lever, so as to feed the cartridges into the longitudinal chamber in  
 25 which the breech-block is mounted, said device within the magazine being provided with a lug or projection which extends through the side wall thereof, and into a longitudinal groove formed in the breech-block, and a turn-  
 30 ing pin which passes downwardly through the side of the breech-block, or through the groove formed therein, said turning pin being provided in one side thereof with a transverse notch or recess, and said pin being also pro-  
 35 vided with means for locking it in any desired position, substantially as shown and described.

3. In a magazine-gun, the combination with a longitudinally-movable breech-block, which  
 40 is mounted in a chamber at the rear of the barrel of the gun, and which is provided with a firing-pin, of a magazine which is secured to the side of the lock-frame, and which is provided with a spring-operated longitudi-  
 45 nally-movable casing or frame, and means for feeding cartridges into said magazine against the operation of the said spring-operated longitudinally-movable casing, said maga-  
 50 zine being also provided with a spring-operated rod at one end of which is a bar or plate which is provided with a spring-operated dog, which is adapted to operate in connection with a spring-operated lever, said dog and  
 55 said lever being adapted to manipulate a cartridge, said parts being in operative connection with the breech-block, substantially as shown and described.

4. In a magazine-gun, the combination with a longitudinally-movable breech-block, which  
 60 is mounted in a chamber at the rear of the barrel of the gun and which is provided with a firing-pin, of a magazine which is secured to the side of the lock-frame, and which is provided with a spring-operated longitudi-  
 65 nally-movable casing or frame, and means for feeding cartridges into said magazine against the operation of the said spring-op-

erated longitudinally-movable casing, said magazine being also provided with a spring-  
 70 operated rod at one end of which is a bar or plate which is provided with a spring-operated dog, which is adapted to operate in connection with a spring-operated lever, said dog and said lever being adapted to manipulate  
 75 a cartridge, said parts being in operative connection with the breech-block, and said magazine being provided with a slot or opening through which a cartridge is adapted to be projected into the chamber in front of the  
 80 breech-block, substantially as shown and described.

5. The combination with the lock-frame of a magazine-gun, which is provided with a longitudinally-movable breech-block, and opera-  
 85 tive devices connected therewith, of a magazine which is secured to said frame, and in which is mounted a longitudinal rack-bar, a spring-drum provided with gear-teeth and mounted in a spring-operated frame or casing  
 90 which is adapted to move along said magazine, means for feeding cartridges into said magazine against the operation of said spring-operated frame or casing, a sliding spring-operated rod mounted in said magazine over  
 95 said rack-bar, and provided with an arm or plate to which is secured a spring-operated dog, a spring-operated lever mounted in said magazine above said rack-bar, said lever and  
 100 said dog being adapted to grasp the rim or flange of a cartridge, and said parts being in operative connection with a sliding breech-block, substantially as shown and described.

6. The combination with the lock-frame of a magazine-gun, which is provided with a  
 105 longitudinally-movable breech-block, and operative devices connected therewith, of a magazine which is secured to said frame, and in which is mounted a longitudinal rack-bar, a spring-drum provided with gear-teeth and  
 110 mounted in a spring-operated frame or casing which is adapted to move along said magazine, means for feeding cartridges into said magazine against the operation of said spring-operated frame or casing, a sliding spring-op-  
 115 erated rod mounted in said magazine over said rack-bar, and provided with an arm or plate to which is secured a spring-operated dog, a spring-operated lever mounted in said magazine above said rack-bar, said lever and  
 120 said dog being adapted to grasp the rim or flange of a cartridge, and said parts being in operative connection with a sliding breech-block, and said magazine being also provided in one side thereof, with a longitudinal slot  
 125 or opening adjacent to one end of which is an opening closed by a hinged door, and said magazine being also provided with a hinged side or cover which is provided with a spring adapted to bear on said door, substantially as  
 130 shown and described.

7. The combination with the lock-frame of a magazine-gun, which is provided with a  
 longitudinally-movable breech-block, and opera-  
 tive devices connected therewith, of a mag-



azine which is secured to said frame, and in which is mounted a longitudinal rack-bar, a spring-drum provided with gear-teeth and mounted in a spring-operated frame or casing which is adapted to move along said magazine, means for feeding cartridges into said magazine against the operation of said spring-operated frame or casing, a sliding spring-operated rod mounted in said magazine over said rack-bar, and provided with an arm or plate to which is secured a spring-operated dog, a spring-operated lever mounted in said magazine above said rack-bar, said lever and said dog being adapted to grasp the rim or flange of a cartridge, and said parts being in operative connection with a sliding breech-block, and said magazine being also provided in one side thereof, with a longitudinal slot or opening adjacent to one end of which is an opening closed by a hinged door, and said mag-

azine being also provided with a hinged side or cover which is provided with a spring adapted to bear on said door, said hinged door being adapted to force the cartridges from the magazine into the chamber in front of the breech-block, and said sliding spring-operated frame or casing in which the drum is mounted being provided with a spring which operates in connection with ratchet-teeth with which the magazine is provided to hold said casing or frame in any desired position, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 15th day of February, 1897.

JOSEPH HARLE.

Witnesses:

JAMES HOWARD,

NELSON E. WOODHOUSE.