

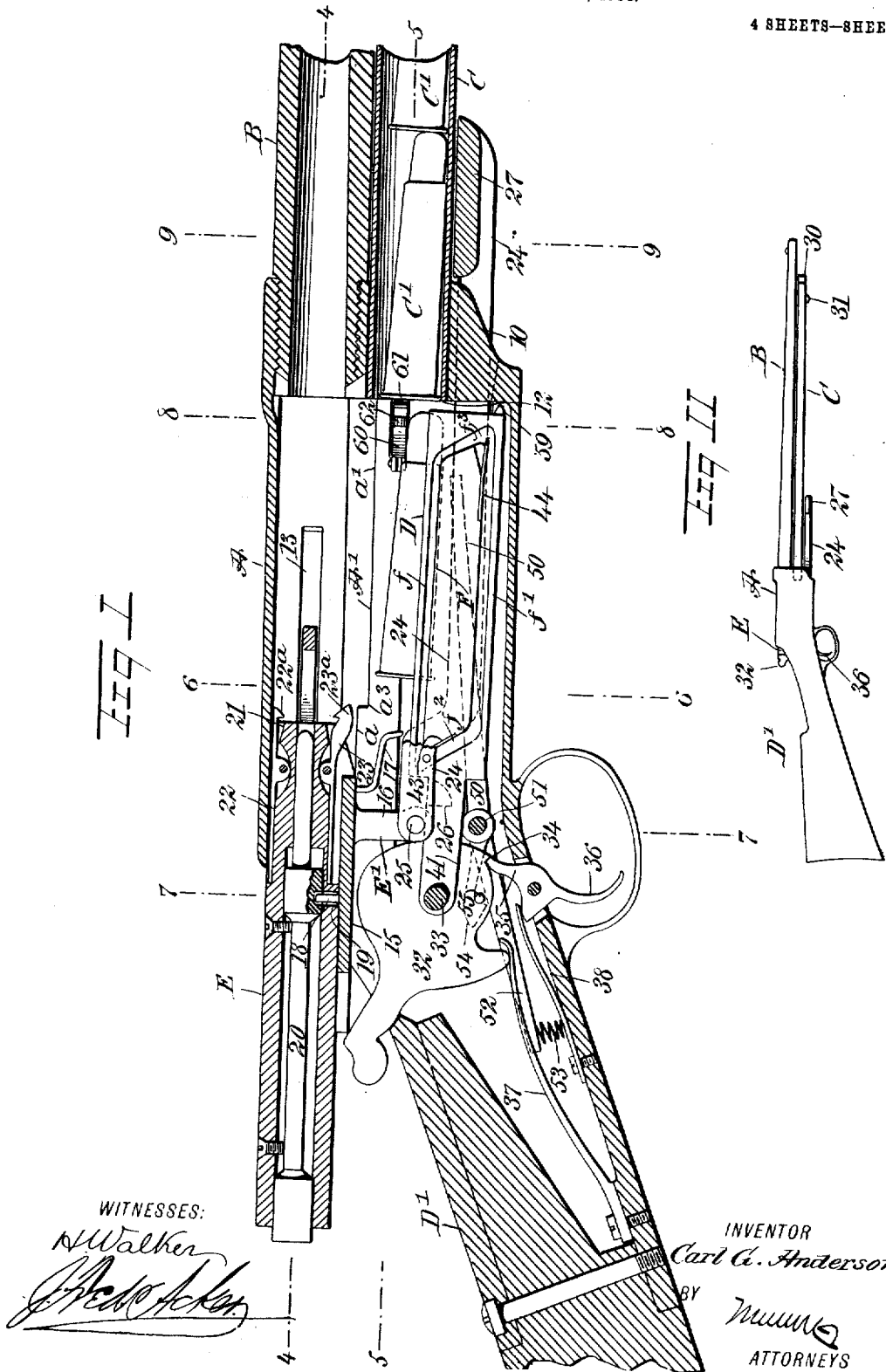
No. 829,313.

PATENTED AUG. 21, 1906.

C. G. ANDERSON,
MAGAZINE FIREARM.

APPLICATION FILED AUG. 20, 1904.

4 SHEETS—SHEET 1.

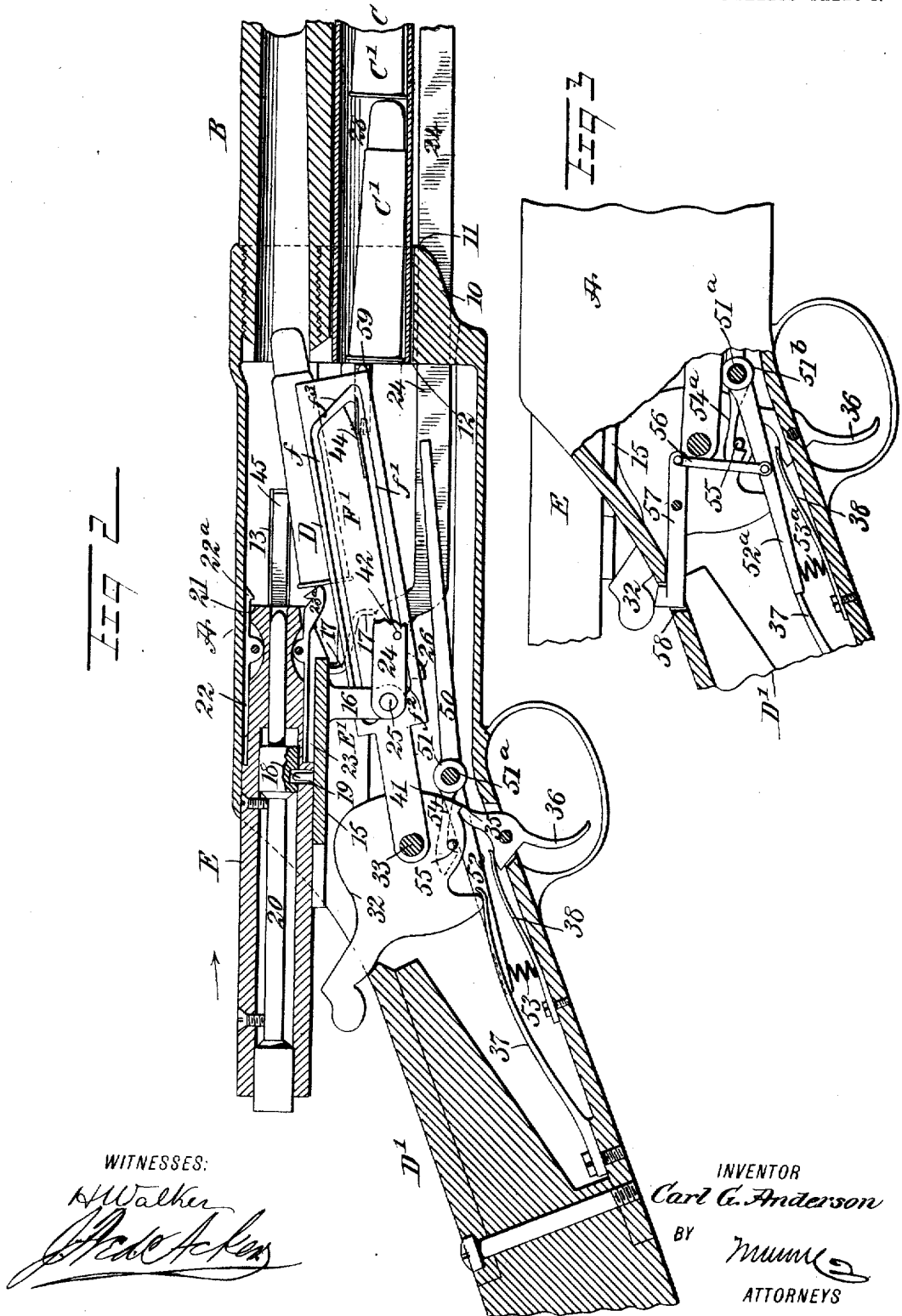


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4 SHEETS—SHEET 3.

FIG 4

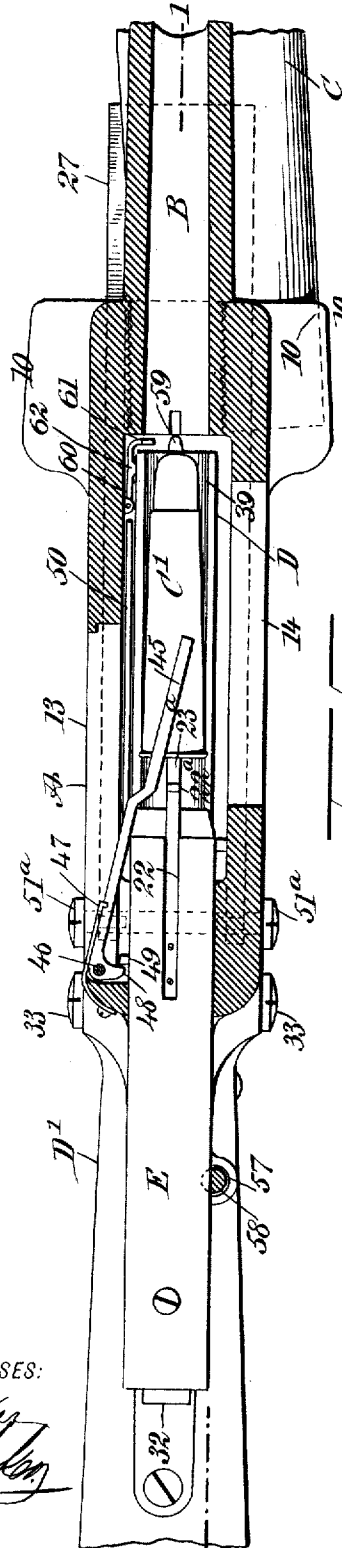
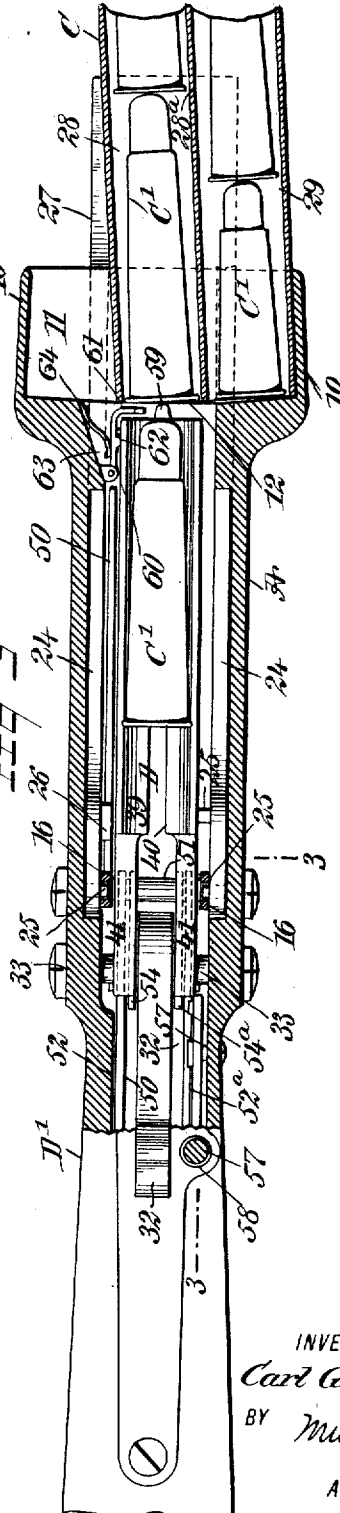


FIG 5



WITNESSES:

H. Walker
C. Anderson

INVENTOR

Carl G. Anderson

BY

Mum

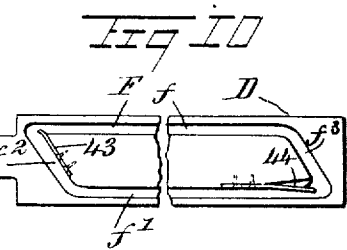
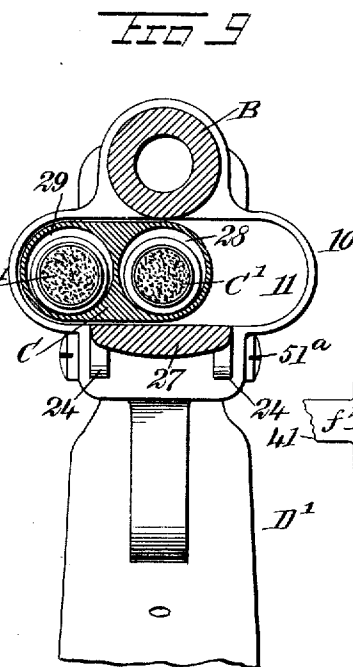
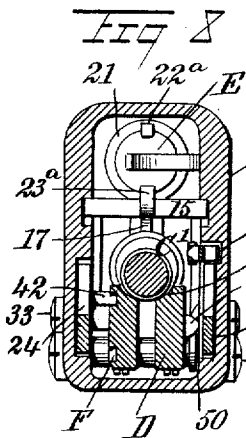
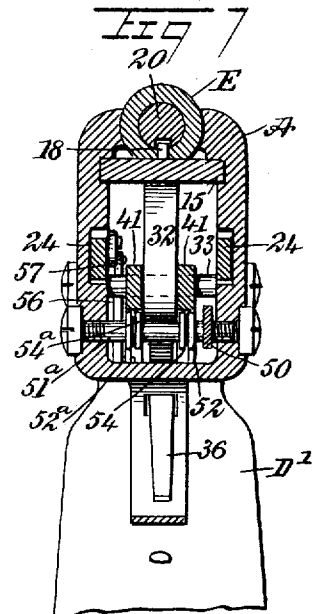
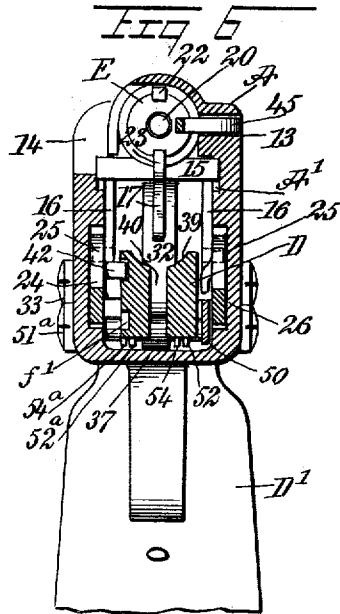
ATTORNEYS

No. 829,313.

PATENTED AUG. 21, 1906.

C. G. ANDERSON.
MAGAZINE FIREARM.
APPLICATION FILED AUG. 30, 1904.

4 SHEETS—SHEET 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CARL GUSTAV ANDERSON, OF BLAIR, NEBRASKA.

MAGAZINE-FIREARM.

No. 829,313.

Specification of Letters Patent.

Patented Aug. 21, 1906.

Application filed August 20, 1904. Serial No. 221,524.

To all whom it may concern:

Be it known that I, CARL GUSTAV ANDERSON, a citizen of the United States, and a resident of Blair, in the county of Washington and State of Nebraska, have invented a new and useful Improvement in Magazine-Firearms, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide the firearm with a movable magazine divided into two separate chambers, each chamber being provided with shells filled with a different kind of ammunition, and to pivot and guide the magazine relative to the frame and barrel in order that either chamber of the magazine may be brought into vertical alignment with the barrel and in position to deliver a cartridge to a carrier in the frame, which in its turn in conjunction with the breech-bolt deposits the cartridge in the barrel of the arm, thus enabling a sportsman to use either one of the chambers at will and as long as he may desire and occasion may demand and rendering the arm a combined sporting and target rifle.

Another purpose of the invention is to control the breech-bolt by a fore-arm movement and to provide mechanism within the frame which will be simple and of few parts, which parts are durable and economic, readily assembled, and wherein when said parts are assembled they will be accurate, positive, and reliable in action.

Another purpose of the invention is to provide means for holding the needle against action in the breech-bolt until the breech-bolt is closed and also means for holding the hammer cocked and so that it cannot be released by the trigger until such time as the sportsman may desire, thereby rendering the arm doubly safe.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal vertical section through the major portion of the improved arm, the breech-bolt being fully opened and the cartridge being shown in the carrier, which carrier is in its normal or lower position. Fig. 2 is a view similar to Fig. 1, the

breech-bolt being slightly slid forward and the carrier being shown in position to enter the cartridge in the barrel. Fig. 3 is a partial side elevation of the frame and adjacent portion of the stock, parts being broken away. Fig. 4 is a horizontal longitudinal section taken substantially on the line 4 4 of Fig. 1. Fig. 5 is a similar section taken practically on the line 5 5 of Fig. 1. Fig. 6 is a transverse section taken substantially on the line 6 6 of Fig. 1. Fig. 7 is a similar section taken substantially on the line 7 7 of Fig. 1. Figs. 8 and 9 are also cross-sections taken, respectively, on the lines 8 8 and 9 9 of Fig. 1. Fig. 10 is a side elevation of the cartridge-carrier, and Fig. 11 is a side elevation of the improved arm complete drawn upon a small scale.

A represents the frame of the arm; B, the barrel; C, the magazine; D, the cartridge-carrier, and D' the stock. At the forward end of the frame below the barrel B a lateral extension 10 is provided, projecting an equal distance beyond each side of the frame and forming a chamber 11, which is open at the front, the said chamber being adapted to receive the rear or inner end of the magazine C. This chamber 11 is provided at its central portion immediately beneath the barrel B with an opening 12 of sufficient size to permit the passage of a cartridge, which opening is in communication with the interior of the frame and is adapted to permit a cartridge from the magazine to find lodgment on the cartridge-carrier D. At the upper left-hand side of the frame A a horizontal slot 13 is produced, and at the corresponding right-hand side of the frame a longitudinal opening 14 is made, as is shown in Fig. 4, through which opening 14 the empty shell is adapted to be thrown.

E represents the breech-bolt, which has preferably a flat bottom or under side, but is otherwise circular. The flat bottom or under side is given to the breech-bolt so as to permit the strain to fall as far back as possible. This breech-bolt travels in engagement with the upper inner face of the frame A and upon a guide device E'. This guide device consists of a platform member 15, upon which the flat under face of the breech-bolt rests, connecting members 16, which extend down from opposite sides of the platform member 15 near the forward end of the said platform member, and a guard-finger 17, located centrally at the forward edge of the

platform member, which guard-finger is carried downwardly and forwardly, as is shown in Fig. 1, the lower end of the guard-finger extending downward.

5 The platform member 15 of the guide device E' is provided with a pin 18, extending upwardly therefrom, preferably about centrally thereof, and this pin 18 is always within an aperture 19 in the bottom of the breech-bolt, as is shown in Figs. 1 and 2. The said pin is of sufficient length to extend up within the breech-bolt and enter a recess in the firing-pin 20; but the said pin 18 does not enter the recess in the firing-pin 20 until the breech-bolt has been drawn a certain distance rearward, and at such time by engagement with the said firing-pin effectually prevents said pin from having end movement, and consequently from being brought to discharging contact with the cartridge until the proper time. The forward end of the breech-bolt is provided with an inclined exterior surface 21, rendering this portion of the breech-bolt about the same diameter as the rim portion of a cartridge.

25 Two extractors 22 and 23 are employed, located one at the upper portion of the breech-block E and the other at the bottom portion thereof, suitable recesses being provided for their reception, and these extractors are preferably pivoted to the breech-bolt and their heads extend out beyond the forward end of the bolt. The head 22^a of the upper extractor 22, however, does not extend as far outward as the head 23^a of the lower extractor 23, and said head 23^a of the lower extractor is of larger size than the head of the upper extractor.

40 Actuating-arms 24 are pivoted, by means of suitable pins 25, to the lower ends of the connecting members 16 of the guide device E', and these actuating-arms 24 are suitably carried within the frame through its forward end and are connected with a handle 27, mounted to slide beneath the magazine, being independent thereof. The said handle when moved forward and backward imparts similar movement to the actuating-arms 24, and the said arms are so mounted that they have slight tilting movement in a vertical plane and movement longitudinally of the gun. The left-hand actuating-arm 24 is provided with a downwardly-extending lug 26, having its forward edge more or less curved, which lug is shown by dotted lines in Fig. 1 and by positive lines in Fig. 6.

55 The platform member 15 of the guide device E' is adapted for movement on slideways A', formed in the inner side faces of the frame A, and each slideway, as is best shown in Fig. 1, consists of a rear section *a* and a forward section *a'*, the rear section *a* being nearer the upper surface of the frame A than the forward section *a'*, thus producing a shoulder *a*³. The distance between the

shoulder *a*³ and the end of the section *a'* of the slideway at the barrel corresponds to the length of the platform member 15 of the guide device E'.

As has been stated, when the breech-bolt is in its rear position (shown in Fig. 1) the pin 18 of the guide device E' is in engagement with the pin or needle 20, preventing the pin from having movement; but when the breech-bolt has been carried to the breech end of the barrel the platform member 15 of the guide device E' will fit into the lower section *a'* of the slideways A', thus locking the breech-bolt in firing position, and at the same time the hammer may be operated to strike the pin or needle, as the needle will have been released from the pin 18.

To open the gun, it is simply necessary to slightly draw the handle 27 downward and then carry it rearward, tilting the arms 24 upon the fulcrum shown at X in Figs. 1 and 2, so that their rear ends will move upward as the handle 27 moves downward, thus causing the platform member 15 to be raised over the shoulders *a*³, whereupon the breech-bolt will again be brought to the position shown in Fig. 1. The movement of the platform member 15 is so slight that it amounts to no more than a little play. The firing-pin never leaves the breech-bolt, and its movement in causing the explosion of the cartridge is very slight—so slight, indeed, that it will be returned to its normal position (shown in Fig. 1) by its recoil in firing.

65 The magazine C is divided into two chambers 28 and 29 by means of a central partition 28^a, as is shown in Fig. 5. Each chamber is independent of the other, and each chamber is adapted to contain cartridges C'; but while the cartridges are of the same caliber the cartridges in one chamber are loaded differently than the cartridges in the other chamber. The outer end of the magazine is covered by a suitable cap 30, which is removable, and springs of suitable strength are placed in the chambers of the magazine at such end. The magazine is pivoted at its central portion near its forward end by means of a suitable pin 31 to the under central portion of the barrel, and the rear end of the magazine is free to move laterally in the chamber 11 in the extension 10 of the frame A. The rear ends of the chambers 28 and 29 are open, so that the cartridges may readily pass out into the frame. The magazine is moved by hand or by means of a suitable lever, if so desired, so as to bring one or the other of the chambers 28 or 29 in registry with the opening 12, communicating with the interior of the frame, and the magazine may be held in its adjusted position by frictional contact with the rear wall of the chamber 11 or may simply be permitted to lie in the position in which it is placed. It will thus be observed that either one of the cham-

bers may be brought into position to discharge its cartridges into the frame and upon the cartridge carrier or receiver D, and thus almost in an instant the character of the ammunition supplied to the cartridge-carrier can be changed.

A hammer 32 is mounted on a suitable pin 33, extending through the frame, where it connects with the stock D'. The said hammer is provided with the usual notch 34, adapted to be engaged by the nose 35 of the trigger 36 when the hammer is in the cocked position, (shown in Figs. 1 and 2,) the trigger being mounted in the customary manner. A spring 37 is engaged and depressed by the hammer 32 when in its cocked position, which spring has a tendency to force the hammer forward, which it does when the hammer is released from the trigger 36, and the hammer is then brought in engagement with the needle 20. A spring 38 is secured in the stock and has bearing on the trigger 36, serving to hold the said trigger always in position for locking engagement with the hammer 32.

The cartridge-carrier D is provided with a V-groove 39 near its upper edge, as is shown in Figs. 5 and 6 and in Fig. 8, and with a longitudinal slot 40, which extends from a point near its forward end through its rear end, and at the rear end of the said cartridge-carrier D two rearwardly-extending arms 41 are provided, (see Fig. 7,) and these arms are fulcrumed upon the same pin 33 on which the hammer 32 has movement. In one side face of the cartridge-carrier D a continuous groove F is produced. This groove consists of an upper longitudinal straight section f , a corresponding lower straight section f' , and downwardly and forwardly inclined end sections f^2 and f^3 , connecting the upper and lower sections f and f' . A pin 42 extends inward from one actuating-arm 24 and enters the said groove F, and at the lower forward portion of said groove a spring-switch 44 is located, and a second spring-switch 43 is located at the upper rear portion of the said groove, as shown in Figs. 1 and 10. These spring-switches are readily passed by the pin 42 when the said pin is traveling in the proper direction, but prevent the pin from moving in the wrong direction. Thus when the cartridge-carrier is in its lower or normal position (shown in Fig. 1) the pin 42 will be at the rear end of the upper straight section f of the groove F at the junction of the said section f with the rear section f^2 . When the fore-arm 27 is carried forward to close the breech-bolt against the breech of the barrel, the pin 42 will travel down the rear inclined section f^2 of the cartridge-carrier, which has already received a cartridge, and will tend to elevate the forward end of the said carrier, as is shown in Fig. 2, and thus direct the point of the cartridge to the barrel. This cartridge-carrier never assumes a horizontal position,

which is due to the fact that the guide device is below the breech-bolt E. Therefore the lower extractor 23 is made longer than the upper one, so that it may engage with the flanged end of the cartridge and carry the same upward as the carrier leaves the cartridge, and this lower extractor 23 as the breech-bolt moves forward gradually brings the cartridge to a horizontal position or so that it is immediately opposite the end of the breech-bolt, which end of the breech-bolt by engagement with the cartridge forces it into the barrel. As the cartridge is seated in the barrel and as the breech-bolt is brought to firm contact with the breech of the barrel and is locked in such position the heads 22^a and 23^a of the extractors 22 and 23 engage with the rim of the cartridge ready to draw the blank shell out of the barrel when the breech-bolt is moved to the rear. The function of the guard-finger 17, carried by the platform 15 of the guide device, is to extend into the slot 40 of the cartridge-carrier and prevent the cartridge when received by the carrier from moving too far to the rear.

With reference to the movement of the pin 42 through the groove F of the cartridge-carrier D, beginning where the gun is closed ready to be fired, at this point the pin 42 is just past the spring-switch 44. After the gun is fired and is being opened the pin 42 travels up the rearward inclined section f^3 , depressing the cartridge-carrier D. The pin 42 now travels through the groove f , and when the gun is fully open the pin 42 is at the upper rear end of said groove f , just past the spring-switch 43. When the gun is being closed, the pin 42 travels down the forward inclined section f^2 , raising the cartridge-carrier D to the level of the barrel, and when the gun is closed ready to be fired the pin 42 is again just past the switch 44. The cartridge-carrier is now in its upper or what I term its "normal" position, and there it remains until the gun is again opened.

The cartridges are thrown out by what I term an "expelling-arm" 45. This arm is normally located in the left-hand slot 13 of the frame and occupies a position parallel with the cartridge-shells in the barrel and one partly withdrawn from the barrel. This expelling-arm 45 is pivoted at its rear end, as is shown at 46 in Fig. 4, and a spring 47, located at its rear portion, normally holds the expelling-arm in the aforesaid position in the slot 13. The expelling-arm 45 at its pivot end is provided with an inwardly-extending lug or crank-arm 48, which as the breech-bolt is carried rearward is engaged by a pin 49 at the left-hand side of the said breech-bolt, whereupon the free end of the expelling-arm is carried into the frame and is brought with sufficient force against the empty shell to carry said shell out at the opening 14 at the right-hand side of the

frame. After the pin 49 has passed the crank-arm 48 on the expelling-arm 45 the spring 47 restores the said expelling-arm to its normal position.

5 The manner in which the breech-bolt is locked at the breech of the barrel has been described, and I will now describe the safety device or the manner in which the hammer is held in cocked position until purposely re-
 10 leased for firing. This release device consists of a locking-lever 50, located at the left-hand side of the frame at its lower portion, which lever forms a portion of a sleeve 51,
 15 mounted to turn on a fixed pin 51^a, secured in the frame in front of and adjacent to the hammer 32. An arm 52 extends rearwardly from the left-hand end of the said sleeve 51 within the chamber in the stock in which the
 20 hammer and trigger springs are secured, and at the rear end of this arm 52 a spring 53 is secured, being likewise attached to the said stock, and this spring is a pulling-spring, exerting upward tension on the said locking-lever
 25 at its free end, the free end of which lever extends nearly to the magazine, yet below it. A hook 54 is secured to this sleeve 51, adja-
 30 cent to the rearwardly-extending arm 52, and this hook 54 is adapted to engage with a pin 55, which extends through the hammer from one side to the other. The lug 26 on the
 35 left-hand actuating-arm 24 as the breech-bolt is carried forward rides upon the lever 50 and as the breech-bolt closes against the breech of the barrel presses the lever 50
 40 downward sufficiently to cause the hook 54 to disengage from the pin 55 at the left-hand side of the hammer. The hammer is now free to be released by pulling on the trigger,
 45 and when the breech-bolt is carried to its rear or open position and the hammer is cocked the hook 54 is drawn over the said pin 55 by the action of the spring 53. However, I desire to have a more positive safety device for
 50 use in connection with the hammer, which is exteriorly operated, for example, by the thumb of the operator. Therefore at the right-hand side of the frame, within the same,
 55 as is shown in Fig. 3, I mount a second sleeve 51^b on the said fixed pin 51^a, and this second sleeve 51^b carries a rearwardly-extending arm 52^a, corresponding to the arm 52, held
 60 downward by a pulling-spring 53^a, corresponding to the spring 53 mentioned. A hook 54^a is attached to this auxiliary sleeve 51^b, said hook being in engagement with the
 65 right-hand extension of the pin 55. A link 56 is pivoted to the arm 52^a, which link extends upward and is pivotally attached to a thumb-lever 57, fulcrumed on the hammer,
 70 having an extension carried up and out through an opening 58 in the stock just to the rear of the hammer-head when cocked. The hooks 54 and 54^a when in engagement with the pin 55 draw downwardly and for-
 75 wardly or downward and forward of the ful-

crum of the hammer, and thus hold the hammer in a cocked position. When the safety device shown in Fig. 3 is employed, it will be observed that no matter whether the hook
 80 54 is released from the hammer 32 or not when the bolt is closed the hammer cannot yet be dropped, being held by the hook 54^a; but when it is desired to fire by simply pressing down upon the thumb-lever 57 the hook
 85 54^a is released from the pin 55, the trigger may be drawn, and the hammer will be free to fall. At the lower central portion of the forward end of the cartridge-carrier D a forwardly-extending lug 59 is formed, and in a
 90 recess 63 in the left-hand side of the frame at that end adjacent to the magazine a retaining-lever 60 is fulcrumed, provided with an inwardly and transversely extending arm 61, adapted normally to engage with the rear-
 95 most cartridge in a chamber of the magazine to hold the said cartridge and the following cartridges in place in the chamber. This retaining-lever 60 is provided at its central portion with an inwardly-extending lug 62, and
 100 this lug is adapted to be engaged by a lug 62^a, which extends from the left-hand side of the cartridge-carrier, as is shown in Fig. 8. The retaining-lever 60 is normally held in retaining position relative to the cartridges in the
 105 chambers of the magazine by means of a spring 64, as is shown in Fig. 5.

In the operation of the cartridge-carrier as the cartridge-carrier passes upward at its forward end to direct a cartridge into the barrel the lug 59 at the bottom of the said cartridge-carrier will engage with the innermost
 110 cartridge in the chamber of the magazine in action and will hold the cartridges in place in the chamber, and the lug 62^a on the cartridge-carrier will engage with the lug 62 on the retaining-lever and force the same outward to such an extent that the arm 61 will
 115 be carried out of the path of the cartridges in the chamber. As the empty carrier D descends the lug 59 will leave the innermost cartridge in the chamber in action, and at the same time the retaining-lever will still be held in its outer position, and the inner cartridge
 120 will then be forced rearward to the carrier by the spring in the chamber in which it is contained, passing the arm 61 of the retaining-spring, and will proceed along the grooved upper portion of the carrier until it strikes the guard-finger 17, heretofore referred to, and
 125 just as soon as this cartridge mentioned leaves the chamber the spring 64 will force the retaining-lever inward, and its arm 61 will block the outward passage of the next rear cartridge in the chamber, holding it in its place until in its turn it is to be deposited
 130 in the carrier.

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

1. In magazine-firearms, a hammer, a 130

pivot-pin for the hammer, a breech-bolt, an operating device for the breech-bolt, a cartridge-carrier pivoted on the pivot-pin for the hammer, the cartridge-carrier being provided with a continuous groove in one side, embracing upper and lower straight members and downwardly and inwardly inclined end members, spring-switches at the lower forward portion of the groove and at the upper rear portion of the groove, and a pin carried by the operating mechanism of the said breech-bolt, arranged to travel in the said groove to raise and lower the said cartridge-carrier as the said breech-bolt is moved backward and forward.

2. In a magazine-firearm, a breech-bolt and its firing-pin, a guide device for the breech-bolt, embracing a platform, a pin extending from the platform and adapted to enter apertures in the breech-bolt and in the firing-pin, slideways for the said platform, one section of the slideways being deeper than the other, extensions from the said platform, operating-arms pivoted to the said extensions, and a handle at the outer ends of the said operating-arms.

3. In magazine-firearms, a frame having slideways therein, one section of which is deeper than the other, a breech-bolt having movement in the said frame, a needle in the breech-bolt, the breech-bolt and needle being provided with alining apertures, a guide device for the breech-bolt, comprising a platform adapted to travel on the said slideways, a pin extending from the platform into the re-

cesses of the breech-bolt and needle, and downward extensions from the platform, operating-arms pivotally connected with the said downward extensions from the platform, a handle connecting the operating-arms, a cartridge-carrier operated by the action of the operating-arms, and a locking device likewise operated, through the medium of said operating-arms.

4. In a firearm, a hammer, a breech-bolt, a firing-pin in said breech-bolt, a combined guide and locking device for the breech-bolt and the firing-pin, operating-arms operated from the exterior of the frame and connected with the guide device, a cartridge-carrier raised and lowered by the operating-arms, a lock-lever having a hook engaging with a pin on the hammer, which hook is tripped by the action of the operating-arms, and a safety device comprising a lever, a hook connected therewith engaging with a pin at the opposite side of the hammer, a link connected with the said lever, and a thumb-lever connected with the said link and operated from the exterior of the frame, and springs connected with the lock-lever and with the lever of the safety device, which springs tend to draw their connected parts in a downward direction.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CARL GUSTAV ANDERSON.

Witnesses:

F. W. KENNY, Sr.,
GEORGE B. WILLSEY.