(No Model.) 2 Sheets—Sheet 1.

W. H. OSTRANDER.

MAGAZINE SHOTGUN.

No. 469,900. Patented Mar. 1, 1892.

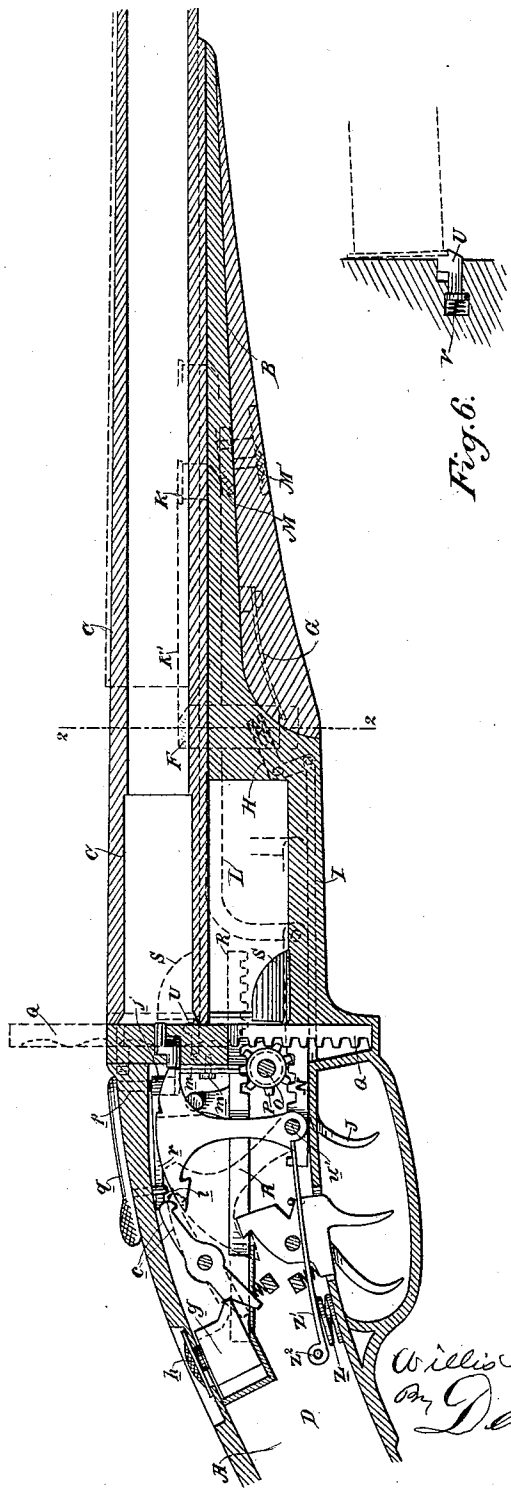

Fig. 1.

Fig. 6.

Witnesses,
J. L. Source
H. F. Ascheck

Inventor,
Willis H. Ostrander
by Dewey & Co
attys

(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

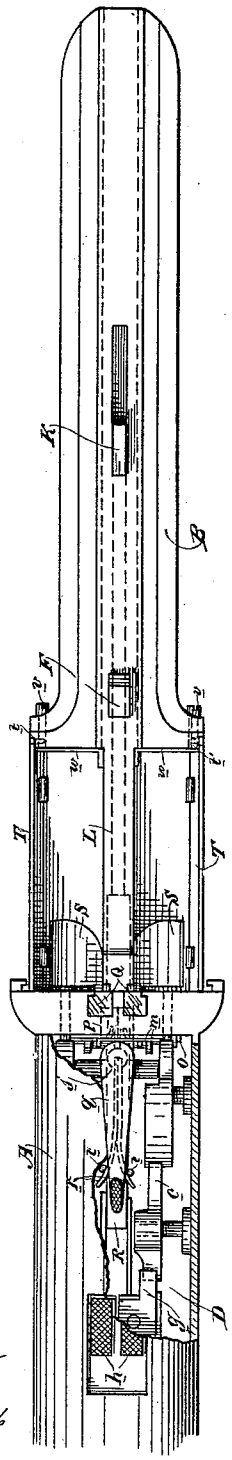


Fig. 5.

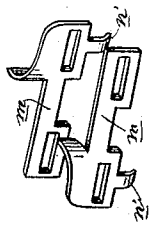


Fig. 1.

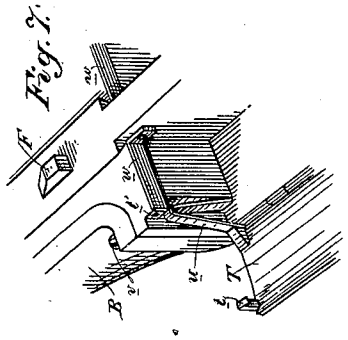


Fig. 4.

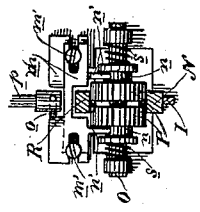
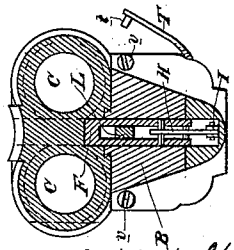


Fig. 3.



Witnesses
J. H. Nourse
H. F. Escheck

Inventor,
William H. Ostrander
by Dewey & Co.
Attys

UNITED STATES PATENT OFFICE.

WILLIS H. OSTRANDER, OF MERCED, CALIFORNIA.

MAGAZINE-SHOTGUN.

SPECIFICATION forming part of Letters Patent No. 469,900, dated March 1, 1892.

Application filed April 6, 1891. Serial No. 387,877. (No model.)

To all whom it may concern:

Be it known that I, WILLIS H. OSTRANDER, a citizen of the United States, residing at Merced, Merced county, State of California, have invented an Improvement in Repeating-Guns; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to certain improvements in that class of weapons known as "magazine-guns" or "repeaters." It is especially applicable to shotguns having two barrels upon a single stock.

It consists of a stock having two barrels mounted thereon so as to slide forward and back, a mechanism whereby loaded shells are carried from the magazine and introduced into the barrels of the gun, and in certain details of construction in connection therewith, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a vertical section taken through the nearest barrel, showing the rear portion in dotted lines. Fig. 2 is a plan view of the stock with the barrels removed. Fig. 3 is a transverse section of the barrels at 2 2, Fig. 1, looking to the rear. Fig. 4 is a transverse view of the pinions and disengaging mechanism. Fig. 5 is a separate view of the sliding disengaging-plates. Fig. 6 is a section showing the pin and spring to hold the bottom of the cartridge. Fig. 7 is a perspective view showing one of the doors open.

A is the stock of the gun; B, the front extension of the stock, called the "fore-end;" C, the barrels, adapted to slide backward and forward upon this fore-end, and D is the casing within which the operating mechanism is contained.

My present invention is an improvement on my former patent, No. 450,773, dated April 21, 1891; and it consists in certain improvements of parts of the operating mechanism.

The first portion of my improvement relates to the construction of the locking-latch F, by which the barrels are held in place when closed against the breech, and the mechanism by which it is unlocked to allow the barrels to slide forward and back. This latch engages a corresponding slot K′ in the web between the barrels and is held in engagement by a spring G. The front end of this latch is inclined or beveled, so that when the barrels are drawn backward they will easily depress the latch by the movement of the locking-slot over this inclined portion of the latch, which forces the latch down against the spring G, and the lower part of the web will slide over the latch until the locking-slot arrives in line with the latch, which will then be forced upward by the spring to engage with the slot and lock the barrels in place.

The latch F is connected with the front end of a bell-crank lever H. The other arm of this lever is connected with a rod I, which extends back into the casing D and is there connected with a trigger J, which is pivoted or fulcrumed in the stock, as shown.

The catch K, which engages a slot K′ in the rib between the barrels and through which power is communicated to slide the barrels forward and back, is fixed to the outer end of a bar L, this bar being connected with a rack-bar N, through which motion is communicated to the pinions P, as described in my former patent. The slot K′ is long enough to allow the barrels to move forward sufficiently to expose the length of a cartridge before the rear end of the slot strikes the lug K and acts through the rack and pinion to elevate the cartridge-carrier. In the present case the bar L extends upwardly vertically a short distance from its point of connection with the bar N, and thence extends horizontally beneath the barrels to the point where the upturned catch K is formed upon it.

Beneath the front end of the bar L is a plate M, connected by a stem or shank with a button M′, which is set into a depression in the under part of the fore-end of the stock. The stock is slotted, so that the button and the shank may be moved backward or forward a short distance, carrying with them the plate M. When these parts are pressed toward the rear of the gun, the plate M lies beneath the bar L, and the latter slides backward and forward above this plate and is prevented by it from being depressed.

When it is desired to remove the barrels, it is only necessary to push the button M′ forward, carrying with it the plate M, until it is

beyond the front end of the catch K, when the lever L and the catch may be depressed, so that the latter is disengaged from the slot in the rib of the barrels and will allow the barrels to slide out at the front end.

The doors T, through which the cartridges are introduced into the magazine, are hinged at their lower edges upon each side of the magazine or chamber beneath the barrels, and when closed they are held in place by a positively-acting latch t, which engages with a corresponding catch t' upon the side of the gun.

w is a spring, which throws the door T open when the catch has been disengaged.

v is a sliding pin extending into the front end of the magazine-casing, and when it is pressed upon it releases the catch t, so as to allow the door T to fly open.

w is a spring acting against the pin v and returning it after it has been pressed inwardly, thus leaving the parts in position, so that the doors may be shut and latched again.

In order to adjust the cartridge and hold the front end up, so that it will be in position to enter the barrel when raised to the proper point, I have shown a catch U, which takes hold of the lower end of the cartridge-rim, provided with a small spring V, fitted in the chamber in the rear of this catch and acting to force it forward, and this serves to slightly raise the front end of the cartridge or to counteract the tendency of the front end to settle down below the rear end, and this maintains the front end of the cartridge in proper position to enter the barrel.

The vertically-sliding rack-bars Q, which carry the segments S, by which the shells are raised to the point opposite the barrel, are in the present case formed with one corner of each cut out, so as to fit into the guides in which they move and by which they are retained in place, as plainly shown in Fig. 2. This construction is more satisfactory than to make them of a bevel or dovetailed form in cross-section.

The pinions P are rotated by the reciprocation of the rack-bar N, and these pinions turn loosely upon a transverse shaft O and have an end movement by which either of them may be temporarily disengaged from the rack-bar to prevent any action of the mechanism connected with it while the other is allowed to act, so that one barrel may be loaded without affecting the other.

In my present construction the vertical shaft p has a collar j fixed upon it, and the two springs r have their front ends fixed in this collar. These springs extend rearwardly and are engaged by pins l, which hold these ends in place. Upon the upper end of the shaft p is the lever q, which may be turned to either one side or the other. Projecting from the front of the shaft p is a pin o, which, when the lever q is turned to one side or the other, engages one of two horizontally-sliding plates m. These two plates have their ends slotted, as shown, and these slots fit over screws m', these screws serving as guides upon which the plates may travel.

The operation will then be as follows: The lever q being pressed to one side, the shaft p will be correspondingly turned and the pin o will be moved in the opposite direction, pressing against the edge of one of the plates m, as the case may be, and forcing this plate to one side. Each plate has a lug n', extending downward and engaging a groove in the collar n at one side of one of the pinions, and when one of the plates is moved outward its lug, engaging this groove in the collar, forces the pinion to one side until it is disengaged from the rack-bar N. Being held in this position it is possible to move the loading mechanism upon one side while the other remains stationary. As soon as the lever q is released, the elasticity of the springs r will immediately return the shaft p and the other parts to the center, and the small coil-spring s, which surrounds the pinion-shaft, acting against the end of the pinion or its collar, will force it back into place again. The hammers are locked after the gun has been cocked by means of the safety-catches c, and these catches are released by the sliding button h, fitting upon the top of the stock and connected with the movable plate g, which engages the locking-catch. The rack-bar R, which is operated by the pinions P to cock the gun, also acts upon this slide by reason of the engagement of its rear end, so as to force the slide back whenever the gun is cocked, and this allows the locking-catch to engage the tumbler and prevent the hammers from falling. In order to release the hammers, it is only necessary to move the slide g forward again by means of the button h.

In the present case I have shown the hammer fulcrumed at u', having a projecting lug upon the rear side of the fulcrumed arm which is engaged by a bar z', extending rearwardly within the casing, having its rear end pivoted or fulcrumed at z^2. A stout coil-spring z is placed beneath this fulcrumed bar, and, acting upward against it, power is transmitted through it to move the hammer whenever the latter is released by pulling the trigger.

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

1. A repeating-gun consisting of a stock, one or more barrels adapted to slide forward and back in guides upon the fore-end of said stock, a horizontally-moving rack-bar connected with the barrels, pinions and vertically-moving carriers actuated thereby, magazines situated beneath each of the barrels, adapted to contain loaded cartridges, spring-actuated hinged doors opening outwardly from the sides of each magazine, latches upon said doors engaging catches upon the gun-frame, whereby the doors are positively locked when closed, sliding spring-pins whereby the latches may be disengaged to allow the doors

to open, and springs by which the pins are returned to their normal position after being released, substantially as herein described.

2. A repeating-gun consisting of the stock, one or more barrels sliding in guides upon the fore-end of said stock, a pinion and rack-bars connected with the barrel, intermediate mechanism whereby cartridges are delivered from the magazine to the barrel of the gun by the forward and backward movements of said barrel, a spring-actuated locking-catch, a rod connected with a trigger and extending along the lower part of the stock, and a bell-crank lever, one end of which is connected with the rod and the other with the locking-catch, whereby the latter may be depressed, substantially as herein described.

3. A repeating-gun consisting of the stock, one or more barrels sliding in guides upon the fore-end of said stock, a pinion and rack-bars connected with the barrel and actuated by the forward and backward movements thereof, a mechanism whereby a cartridge is delivered from the magazine into the barrel of the gun, a groove or channel extending longitudinally beneath the barrel of the gun, a catch projecting into said groove, so as to be engaged and moved by the opposite ends of the groove when the barrels are moved forward or backward, a rod extending from said catch and connected with the horizontally-moving rack-bar, a plate M upon which the front end of said bar is supported in its movements, and a button M′, connected with the plate, whereby the latter may be moved so as to support the bar or to release it and allow it and the catch to be depressed and disengaged from the barrels, substantially as herein described.

4. The T-shaped hammer having the long arm fulcrumed in the lower part of the casing in which it is contained and a lug projecting rearwardly behind the fulcrum-point, in combination with the bar z', fulcrumed at the point z^3, and the spring z, acting upon said bar and through it upon the hammer, substantially as herein described.

5. A repeating-gun consisting of a pair of barrels moving in guides upon the fore-end of the stock, a rack-bar connected by a link with said barrels, two pinions journaled upon a horizontal shaft and normally engaged and rotated by the movements of said rack-bar, independent vertically-moving rack-bars and carriers for each barrel, each actuated by one of said pinions, springs by which said pinions are normally pressed toward each other, so that both are engaged and actuated simultaneously by the main rack-bar, a lever upon the top of the gun, a vertical shaft to which said lever is fixed, a pin projecting from said shaft to engage transversely-sliding plates, one movable in each direction by the opposite movement of said lever, lugs projecting from said plates, and grooved collars connected with the pinions, one of which is engaged by each of said lugs, whereby the movement of the lever in either direction will disengage one of the pinions and the loading mechanism from the main rack-bar, substantially as herein described.

In witness whereof I have hereunto set my hand.

WILLIS H. OSTRANDER.

Witnesses:
S. H. NOURSE,
J. A. BAYLESS.