

(No Model.)

3 Sheets—Sheet 1.

P. SHECKLER.
MAGAZINE FIREARM.

No. 521,624.

Patented June 19, 1894.

Fig. 1.

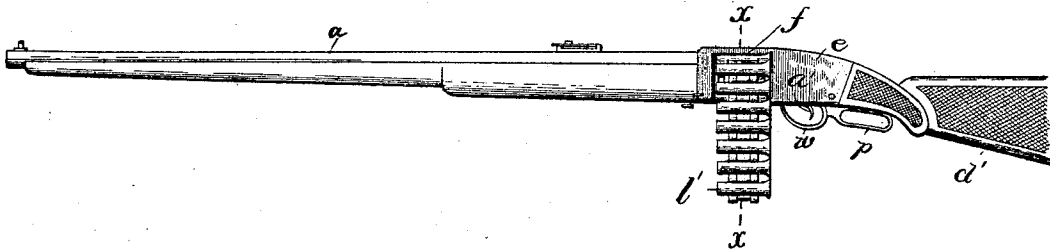


Fig. 2.

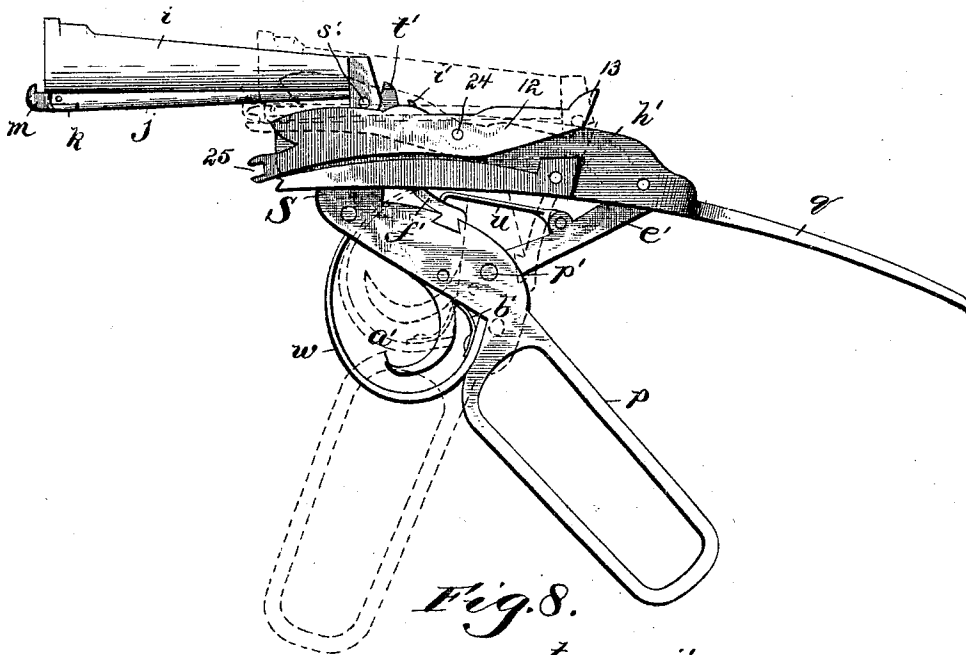
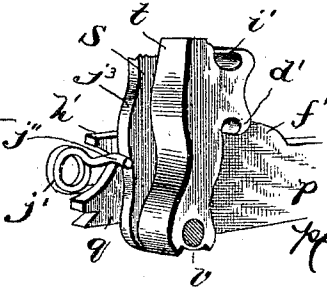


Fig. 3.



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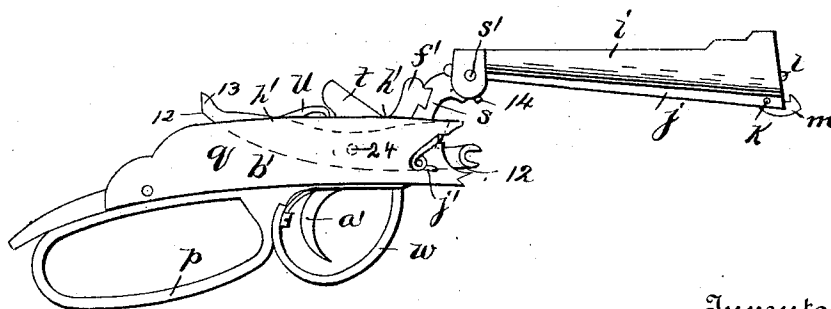
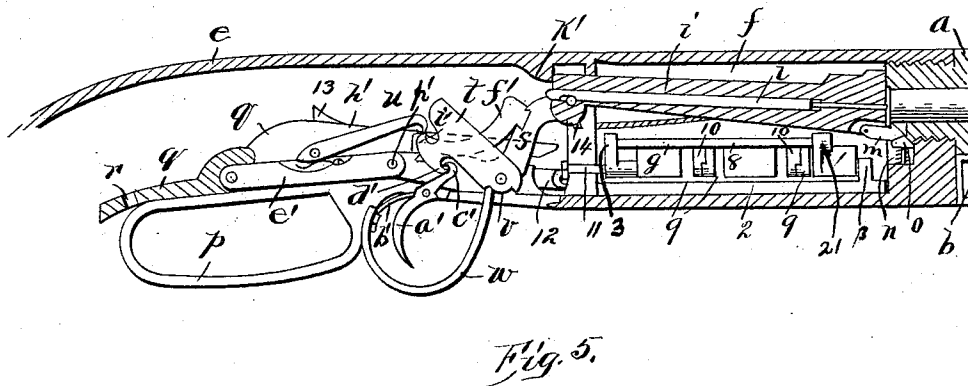
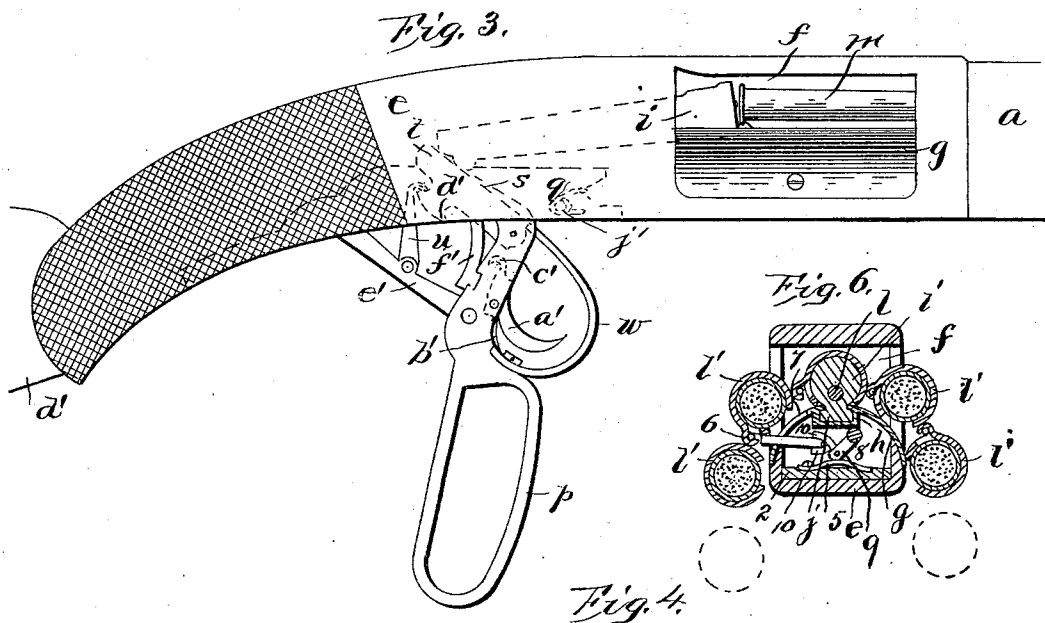
(No Model.)

3 Sheets—Sheet 2.

P. SHECKLER.
MAGAZINE FIREARM.

No. 521,624.

Patented June 19, 1894.



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Fig. 9.

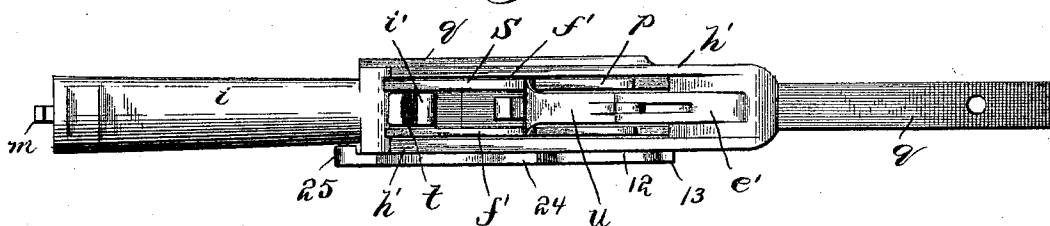


Fig. 10.

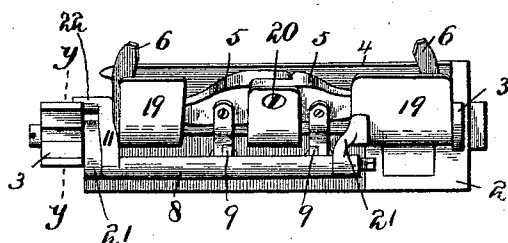


Fig. 11.

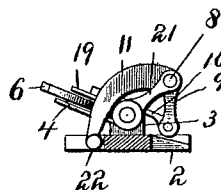


Fig. 12.

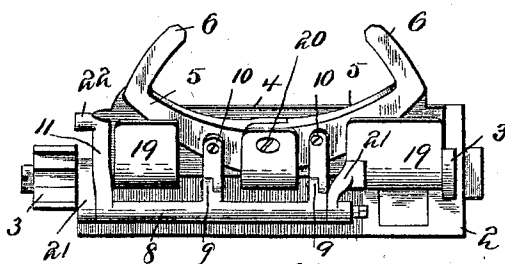
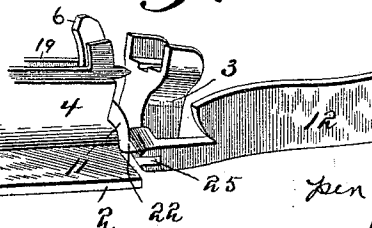


Fig. 7.



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UNITED STATES PATENT OFFICE.

PETER SHECKLER, OF STOCKTON, KANSAS.

MAGAZINE-FIREARM.

SPECIFICATION forming part of Letters Patent No. 521,624, dated June 19, 1894.

Application filed August 29, 1892. Serial No. 444,440. (No model.)

To all whom it may concern:

Be it known that I, PETER SHECKLER, of Stockton, in the county of Rooks and State of Kansas, have invented certain new and useful
5 Improvements in Firearms; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings,
10 and to the letters and numerals of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in fire arms, and the invention consists in certain novel features of construction and in combinations of parts more fully described hereinafter and particularly pointed out in the claims.

20 The object of the invention is to provide an improved magazine gun simple, durable and economical in construction and very effective in action, convenient to handle, and wherein the magazine can be easily and
25 quickly removed when desired and another substituted, and wherein the magazine is not liable to clog or choke.

A further object of the invention is to provide an improved bolt magazine gun having
30 a removable belt magazine and improved feeding mechanism therefor controlled by the movement of the bolt operating lever.

A further object of the invention is to provide an improved lock mechanism exceedingly simple and yet very durable and effective in construction.

A further object of the invention is to provide certain details in construction, arrangements, and combinations of parts whereby a
40 highly efficient and durable gun is provided.

Referring to the accompanying drawings,—
Figure 1, is a side view of the repeating fire arm. Fig. 2, is a detail elevation of the bolt and actuating lever and the lock, dotted lines
45 showing the parts in different positions. Fig. 3, is an elevation showing the receiver and adjacent parts, the operating lever shown thrown down with the cartridge partially inserted in the firing chamber, the magazine
50 belt not being shown. Fig. 4, is a longitudinal vertical sectional view through the receiver and a portion of the barrel showing a cartridge in the firing chamber and the parts in position to fire. Fig. 5, is a detail side ele-

vation of the bolt, actuating lever, and the 55 frame carrying the same. Fig. 6, is a cross sectional view taken in the plane of the line $x-x$ Fig. 1. Fig. 7, is a detail perspective view showing one end of the magazine belt feeder and the inner end of the lever for op-
60 erating the same. Fig. 8, is a detail perspective of one side of an end of the lock frame, and one side of one end of the actuating lever, and the spring carried by said frame and arranged to engage the front end
65 of said lever. Fig. 9, is a top plan view of the construction shown in Fig. 5. Figs. 10 and 12 are detail top plan views of the magazine belt feed mechanism showing the same in different positions, respectively. Fig. 11,
70 is a cross sectional view on the line $y-y$ Fig. 10.

In the drawings the reference letter a , indicates the barrel of the fire arm.

d' , indicates the stock of the arm of any 75 suitable or ordinary shape and construction.

e , indicates the receiver shell or case suitably constructed and in which the stock is secured. The rear or chamber end of the barrel is suitably secured in the receiver as
80 by a screw threaded connection.

At the rear open end of the firing chamber of the barrel the receiver is provided with a longitudinal chamber f , open on each side and of greater length than the cartridge for
85 which the arm is adapted. In the receiver below said chamber the magazine or repeater feed mechanism is located. A shell or case g , is fitted over said feed mechanism and extends down over the sides of the receiver and
90 is suitably secured by screws or the like. This shell is rounded at the edges so as to form the bottom of the chamber f semi-cylindrical or transversely convexed, as shown, and is provided with a central longitudinal
95 dovetailed or undercut guideway h , in its top extending throughout its entire length from the firing chamber to the receiver in rear of chamber f .

i , indicates the breech bolt arranged to slide 100 longitudinally of said chamber f , and force the cartridge into the firing chamber. This breech bolt is provided with a longitudinal guide rib j on its under side which fits and slides in the guide way h in the bottom of
105 chamber f , having the lateral lugs k , at its front end sliding under the undercut edges of the guide way so that the rear end of the

bolt can have a limited vertical rocking movement. It is understood that the bolt contains the firing pin *l*, extending loosely and longitudinally therethrough, and that the bolt forces the cartridge into the firing chamber and after the discharge extracts the cartridge and if the arm is being employed without the repeating or magazine attachment the cartridge after being extracted drops laterally from the bolt and out of chamber *f*. To accomplish this function the front end of the bolt is provided with the extractor hook *m*, projecting forwardly from the front end of guide rib *j*, with its hook shoulder on its upper edge, the end of the hook being beveled up and down. This extractor hook is free to swing vertically and has preferably no spring. The rear end of the barrel beneath the end of the firing chamber is slotted at *n*, to receive said hook and permit it to slide beneath the end of the cartridge and catch on the rim of the cartridge. A spring actuated pin *o*, having a beveled head is located in the bottom of slot *n*, so as to operate vertically and crowd the extractor hook up against the cartridge when the bolt is forced home. This spring pin insures the extractor hook tightly engaging the cartridge until it has extracted the same.

In the present case the operating or guard lever *p*, of the arm carries and operates the lock and actuates the bolt and feed mechanism. The operating lever is carried by a slotted plate or frame *q*, fitted in the under side of the hollow receiver and secured therein by screws *r*, this plate being also secured to the stock. The operating lever is formed to fit snugly against the under side of this lock plate or frame *q* with the inner portion of the lever extending inwardly through the slot of the frame. The form of the lever is substantially L-shaped, the inner end of the lever forming a heel *s*, extending inwardly at an angle. The rear end of the bolt at its lower edge is hinged at *s'*, to the front upper end of this heel. The portion of the operating lever within the lock frame is slotted or formed of two separated plates to receive the hammer *t*, and cocking hook *u*.

The hammer *t*, is pivoted at its lower end to the lower end of the upward bend or heel of the operating lever and is located within the same with its upper end directly in rear of the firing pin in the bolt. The hammer thus works in and between the sides of the operating lever. The lower end of the hammer is provided with a shoulder *v*, engaged by the upper end of the trigger guard *w*. This trigger guard forms the main spring of the lock and is rigidly secured at its rear end to the front end of the handle portion of the operating lever and from thence extends around the trigger *a'* and up with its free end engaging said shoulder of the hammer, hence when the hammer is pulled back it is operated against the tension of the guard by forcing the free end of the same down. The

trigger *a'* is provided with a light spring *b'* forcing its upper end rearwardly. The trigger extends through the operating lever and is pivoted in the same and its upper end within the open space of said lever in the path of the hammer is beveled rearwardly and provided with a rearwardly facing sear hook or catch *c'*. The hammer at the upper portion of its rear edge is provided with a corresponding downwardly facing catch or hook *d'* as shown beveled on its outer edge. The operating lever is provided with a movable fulcrum consisting of a link or lever *e'* pivoted at its rear end in the rear portion of the frame *q* and at its other end pivoted in the rear end of the opening in the operating lever, hence, when the operating lever is swung down and forwardly the entire lever moves down and its upper end moves back in an approximately straight line to move the bolt. A cocking hook *u*, is pivoted at its rear end on the inner side of said link *e'* and has its outer end beveled and its hook extending inwardly and of greater width than the space between the sides of the open part of the operating lever. The upper edges of the sides of the operating lever are curved downwardly and rearwardly from the heel thereof to form the cam edges *f'*; hence, supposing that the arm has just been discharged, the operating lever is thrown down, the bolt is drawn rearwardly extracting the cartridge, the lower edges of the rear end of the bolt sliding on the upper edges *h'* of the frame *q* holding the bolt in the proper position, the link *e'* also swings down pushing the free end of the cocking hook up the inclined edges *f'*, toward the hammer which at the same time is moving rearward until the hooked end of the cocking hook engages the cocking catch *i'* in the upper end of the hammer at the rear edge thereof and facing upwardly. The operating lever is then at its limit of downward movement and the bolt is entirely withdrawn from the loading chamber in the receiver so that a cartridge can be inserted or the magazine belt rotated. The operating lever is then drawn back to its normal position and as the distance between the fulcrum points of the hammer and cocking hook increases the hammer is drawn back by said hook against the tension of the main spring until the cocking hook reaches the lower ends of said curved edges *f'* and the hammer continues to move directly down. The upper edges of the operating lever then throw the cocking hook from engagement with the hammer, and the hooked sear of the trigger immediately catches in the sear catch *d'* of the hammer and the operating lever is pressed home to its normal position, the hammer is cocked and the bolt has forced the cartridge into the firing chamber and all parts are in readiness for discharge.

The simplicity and great reliability of this lock are obvious. The lock is composed of a minimum number of parts and yet is posi-

tively sure and reliable. The parts successfully operate even when exposed to rust and dirt as there are no small, delicate or complicated parts.

5 The operating lever is provided with the usual loop handle as shown although of course the invention is not limited to the use of such a handle.

10 A spring j' is secured to the front end of the frame q so that the free end of the spring will engage the front edge of the operating lever when said lever is nearly forced to its seat and will exert longitudinal pressure on the lever so as to force the same against the 15 under side of the lock frame and prevent the same from dropping. When the lever is thrown down the front edge of the lever passes back and down out of engagement with the spring. The spring acts to hold the lever p , 20 yieldingly up in locked position so that it will not drop by reason of jars or blows. When the lever is thrown up to its seat the pivotal point between the lever p and link e' is thrown above a horizontal line passing 25 through the pivotal point between the frame q and the link e' and the spring j' pressing rearwardly and longitudinally against the front end of the lever yieldingly holds the parts in this position—as the lever in moving 30 down first moves forward against the tension of said spring and then moves down away from the spring. This spring is located at the side of the lock frame and has an end j'' extending inwardly to engage the front edge 35 j^3 of the lever, see Fig. 8. The rear end of the bolt is usually reduced in thickness so that when the cartridge has been forced into the firing chamber the rear end of the bolt can be thrown up against a solid shoulder k' 40 in the upper wall of the receiver forming a stationary recoil abutment. The recoil is thus transmitted directly through the bolt to this rigid shoulder, and all parts of the lock are free from the recoil and shock.

45 The gun as so far described is not adapted as a repeating or magazine gun. The cartridge can be inserted by hand in the firing chamber or placed in the groove in the bottom of the loading chamber and the bolt will 50 carry the cartridge into the firing chamber and then discharge it.

The magazine or repeating attachment consists of a series of cartridge holders l' hinged together at their edges so that the holders all 55 lie parallel and form an endless belt or chain with the two end holders hooked together. This belt or magazine attachment can be of any desired or suitable length, and is passed through the transverse loading chamber in 60 the receiver and the two end holders, one having the hook and the other a bar, are united to form the endless belt which passes through said loading chamber and hangs from the bottom thereof. Each holder is slotted longitudinally 65 on its under side so that the guide rib of the bolt can pass through the slot as the bolt forces the cartridge from the holder into the

firing chamber and then draws the cartridge back into the holder after discharge. Each holder is made of spring metal so as to yield- 70 ingly hold the cartridge and permit the bolt to push through the same to carry the cartridge into and out of the holder. These magazine or repeating belts can be formed and secured together in any suitable manner, 75 and can be very easily carried on the person and quickly attached or detached. As soon as a belt or series of holders is discharged the belt containing the discharged cartridges can be removed and a belt of loaded cartridges 80 substituted therefor. The cartridges after they have been discharged are drawn back into their respective holders and hence are retained for future recharging.

Suitable mechanism is provided operated 85 by the movement of the lock to feed the belt around, one holder at a time. This feed mechanism preferably consists of a plate 2, secured rigidly in the bottom of the space in the receiver beneath the casing or shell forming the 90 bottom of the transverse loading chamber. This plate is provided with upwardly projecting end lugs 3, in which the ends of a transversely swinging plate 4 are mounted. This 95 swinging plate extends longitudinally of the base plate and is arranged to swing from the left side of the base plate upwardly. A pair of angle levers 5, are located preferably on the right hand side of the swinging plate beneath 100 suitable guides 19 and are pivoted together at 20 at or about the center of the plate, so that when said levers are swung inwardly their outwardly extending fingers 6 will slide in beside the swinging plate and within the guides 19 105 and when the levers 5 are pressed out the fingers will project beyond the plate through the openings 7 in the left hand side of the shell g , between two holders of the magazine belt, and as the swinging plate is turned to the right the belt will be drawn through the load 110 opening the width of one holder. A rock shaft 8 parallel with the swinging plate is journaled thereto in rigid arms 21, extending outwardly from the right hand side thereof. This rock shaft has two lateral arms 9, 9, 115 connected by links 10 10, respectively with levers 5 5. This rock shaft is provided with a crank arm 11 extending laterally from the end of the rock shaft to the left hand side of the swinging plate where it is provided with a lateral end 120 or knob 22. It will thus be seen that when the crank arm 11 is raised the fingers 6 6, are first thrust out through the openings in the shell 8 into the belt, and when the fingers pass out their full length the swinging plate itself is 125 swung to the right carrying the fingers to the right and thereby moving the belt the proper distance. This swinging movement is attained by pivoting the plates in the lugs 3, 3, and by having the rock shaft 8, journaled in 130 rigid arms from the plate. When the crank 11 is pressed down the fingers 6 are first drawn in from the belt and then the plate is swung back to the left to its lowered position in readi-

ness to again feed the belt. The fingers in moving back are withdrawn entirely from the belt so that the belt is moved in one direction only in the present drawings to the right. The crank 11 is automatically operated by the lock mechanism. A lever 12 is fulcrumed at 24 on one side of and lies against the lock frame. One end of this lever is forked or notched at 25, and loosely fits the lateral end 22 of the crank 11 to operate the same, and the other end of the lever is provided with a stop 13 on its upper side. The upper edge of said lever forms a cam edge so that as the operating lever forces the bolt forwardly the lug 14 on the end of said bolt will engage the raised portion at the front end of said lever and will force the lever down thereby withdrawing the fingers and throwing the plate back, then, after the gun is discharged the operating lever is thrown down and the bolt drawn back to replace the discharged cartridge. The lug engages the rear raised edge of said lever thereby throwing the fingers out and feeding the belt forward before the bolt is again forced forward.

The advantages of this invention will be obvious to those skilled in the art.

It is evident that various changes might be made in the form, constructions and arrangements of the parts described without departing from the spirit and scope of my invention; hence I do not wish to limit myself to the construction shown or specifically described.

What I claim is—

1. In a fire arm, the combination of the operating lever having an up and down and longitudinal movement, and the spring stationarily located in the receiver in front of the operating lever, and in the path traversed by said lever to engage the front end of the lever when the lever is swung up and exert longitudinal rearward tension on said lever for the purpose described.

2. In a fire arm, the combination of the vertically and longitudinally movable operating lever extending up at its front end and controlling the gun lock and bolt, a link pivoted to said lever and in the receiver, and a spring located in the receiver with an inwardly extending end in front of and in the path traversed by said lever to engage the front end of said lever as and for the purpose set forth.

3. In a fire arm, the combination of the receiver, the operating guard lever, the link pivoted to said lever and in the receiver, the hammer carried by the lever and provided with a cocking catch or notch and with a sear notch, the cocking hook pivoted to said link and arranged to engage said cocking catch of the hammer when the lever is swung down, and the trigger having a sear hook to engage said sear notch of the hammer, substantially as described.

4. In a fire arm, the combination of the receiver, the barrel, the bolt having the firing pin, the operating lever at the under side of

the receiver and extending into the same and hinged to the end of the bolt, the hammer pivoted in said lever, the cocking hook pivoted in a link connecting the lever and receiver, and the trigger pivoted in said lever.

5. In a fire arm, the combination of the reciprocating bolt, a guideway therefor, the front end of said bolt being confined in said guideway so as to permit vertical rocking of the rear end of the bolt, an internal downwardly projecting shoulder in the upper part of the receiver into engagement with which the rear end of the bolt is arranged to be lifted when in firing position, and the operating lever controlling said bolt, substantially as described.

6. In a fire arm, the receiver having the transverse loading opening at the inner end of the barrel open at the sides and closed at the top and bottom so that a magazine cartridge belt can pass therethrough, the bottom floor of said opening having the guide way, the reciprocating bolt arranged to move across said opening and confined in said guide at its front end so that its rear end can swing vertically, and an operating lever controlling said bolt, substantially as described.

7. In a fire arm, the receiver, the reciprocating bolt, the receiver having a guide way for the front end of said bolt, guides in the receiver for the rear end of said bolt independent of and in different planes from the guides for the front end of the bolt, an operating lever for controlling said bolt, and the gun lock controlled by said lever, substantially as described.

8. In a fire arm, the combination of the reciprocating bolt, the operating lever at its upper end pivotally joined to the bolt, a hammer pivoted in said lever, a link at one end pivoted in the receiver and at its opposite end pivoted to said lever and at a point beyond the hammer so that the hammer is between the link and bolt, and means, substantially as described, carried by said link for cocking said hammer by the approach and separation of the upper portion of the lever and the link, substantially as described.

9. In a fire arm, the combination of a reciprocating bolt, an operating lever controlling the same, a hammer pivoted in the operating lever, said lever provided with curved guiding edges on opposite sides of said hammer, a link pivoted in the receiver and to said lever, and a cocking hook carried by the link and extending through the lever and arranged to slide on said edges and to engage and cock the hammer, substantially as described.

10. In a fire arm, the combination of the receiver, the gun lock frame inserted therein with its upper longitudinal edges forming guides, the bolt having its rear end resting on and guided by the upper edges of said frame so that it can be lifted from said frame, the operating lever normally fitting against the under side of said frame and projecting

through the same and hinged to the rear end of the bolt so as to lift the same from said guiding edges, and the lock carried by said lever, substantially as described.

5 11. In a fire arm, the combination of the receiver, the operating lever, a hammer pivoted therein having catches or notches, a trigger
10 in said lever having a sear hook on its inner end to engage a catch of the hammer and
hold the same cocked, the link pivoted in the receiver and to said lever, the cocking hook
pivoted to said link and having a beveled
15 outer end, the inner edges of said lever being curved so as to throw the hook into engagement with a catch of the hammer when the
lever is forced down, said edges being formed to throw the hook out of engagement with
the hammer when the trigger engages the
same, substantially as described.

20 12. In a fire arm, the combination of the receiver having the transverse loading opening, the barrel, the longitudinal under cut guide
groove in the bottom of said opening, the bolt
25 having a bottom rib fitting said groove with lateral projections extending under the edges
thereof, a lever to reciprocate said bolt, and the gun lock.

13. In a fire arm, the combination of the receiver having the transverse opening, the
30 barrel, the bolt arranged to reciprocate across said opening, the magazine cartridge belt of longitudinally split holders passing through
said opening so that the bolt passes through
each holder in removing and returning car-
35 tridges, substantially as described.

14. In a fire arm, a magazine comprising a series of connected split cartridge holders, in
combination with the receiver and the bolt
40 having an extractor and arranged to force each cartridge from its holder, discharge the
cartridge and then return it to the holder, and feeding means for the magazine.

15. In a fire arm, the combination of the receiver having transverse opening, the series
45 of cartridge holders passed through said opening and loosely joined together to form an endless belt, the feed mechanism comprising
movable fingers projecting up through the bottom of said opening between the holders
50 to move them in one direction, the gun lock, a bolt to force the cartridge from the holders
to the firing chamber, means to operate said bolt, and connections from said bolt operat-
ing mechanism to operate the feed mechan-
55 ism, substantially as described.

16. In a fire arm, the combination of the receiver having a transverse opening, a maga-
zine belt passing through said opening, a feed
60 mechanism in the receiver beneath said opening comprising a swinging plate, bent levers
fulcrumed thereto forming fingers which project and recede through openings in the bot-
tom of said plate, and mechanism to swing
said plate, and project and recede the fingers
65 in proper sequence, a bolt and operating means for controlling the bolt and said plate

swinging mechanism, substantially as described.

17. In a fire arm, the combination of the receiver having the transverse opening, the feed
70 mechanism located beneath the bottom of said opening and comprising a swinging plate, bent levers pivoted thereto so as to project
and recede through apertures in the bottom
wall of said opening, a rock shaft carried by
75 the plate and connected to move said levers, said rock shaft provided with a crank arm,
and a lever operated by the operating mechanism of the fire arm and connected with said
crank arm to actuate the feed. 80

18. In a fire arm, the combination of the reciprocating bolt, the operating lever for the
same, the gun lock controlled by said lever, the magazine belt passing through an aperture
85 in the receiver traversed by the bolt, the feeding mechanism for said belt comprising
movable fingers and a cam lever engaged and operated by said bolt and connected to operate
said fingers.

19. In a fire arm, the combination of the receiver having a transverse opening to receive
90 a magazine belt, a feeder to move said belt, a bolt to reciprocate across said opening and
carry the cartridge to and from the barrel, an operating lever connected to operate said
95 bolt, and a lever mounted in the receiver and controlling said feeder and controlled by the
reciprocation of said bolt, substantially as described.

20. In a fire arm, the combination of the receiver having a feeder to move a belt maga-
100 zine, a reciprocating bolt having a side projection, a guide for said projection, an operating
lever controlling said bolt, and a swinging lever controlling said feeder and arranged
105 beside said guide so as to be engaged and rocked by said projection, substantially as described.

21. In a fire arm, the combination of a receiver having a feeder to move a magazine
110 cartridge belt, said feeder having a lateral operating arm, a rocking lever in the receiver
fulcrumed between its ends, the lock and bolt mechanisms arranged to rock said lever, the
inner end of the lever loosely joined to said
115 lateral arm of the feeder substantially as described.

22. A fire arm having a transverse opening in its receiver to receive a magazine belt, said
opening having a stationary rounded floor,
120 and a swinging feeder beneath the floor arranged to intermittently extend above the
floor to move said belt, substantially as described.

In testimony that I claim the foregoing as
125 my own I affix my signature in presence of two witnesses.

PETER SHECKLER.

Witnesses:

C. M. WERLÉ,
HUBERT E. PECK.