

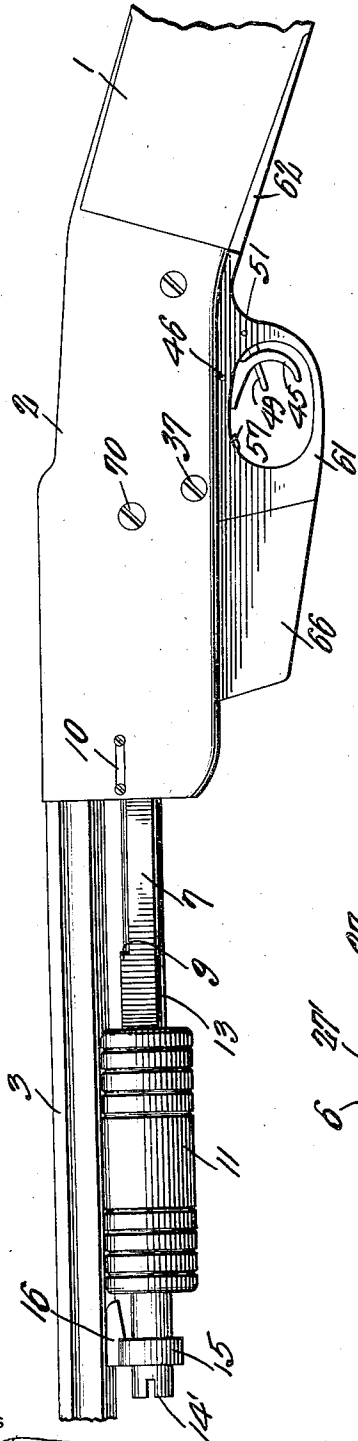
F. M. OSBORNE.  
 REPEATING FIREARM.  
 APPLICATION FILED APR. 2, 1913.

1,077,228.

Patented Oct. 28, 1913.

3 SHEETS—SHEET 1.

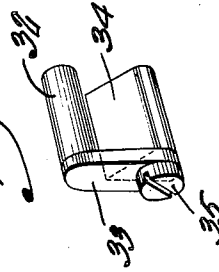
*Fig. 1.*



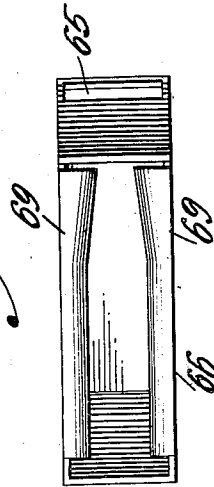
Witnesses

*J. R. Dunning*  
*S. Willoughby*

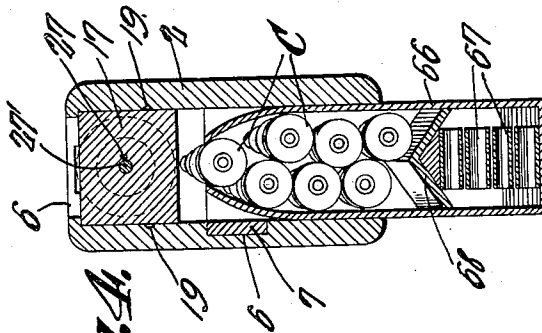
*Fig. 6.*



*Fig. 5.*



*Fig. 4.*



*F. M. Osborne* Inventor

by

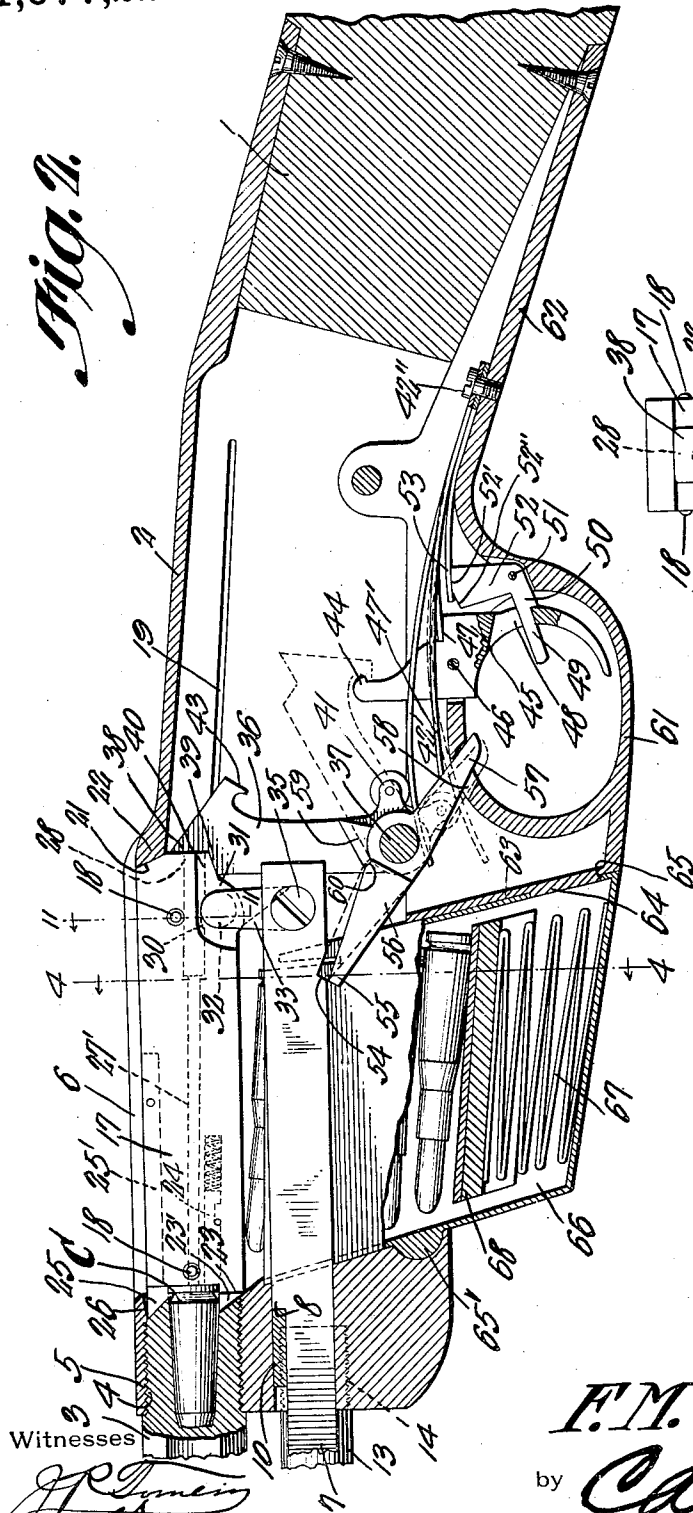
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Fig. 1.



Witnesses

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Fig. 8.

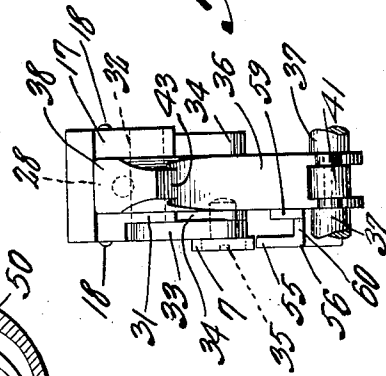
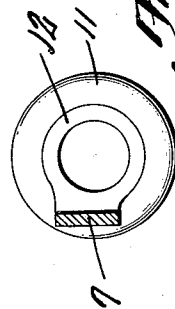
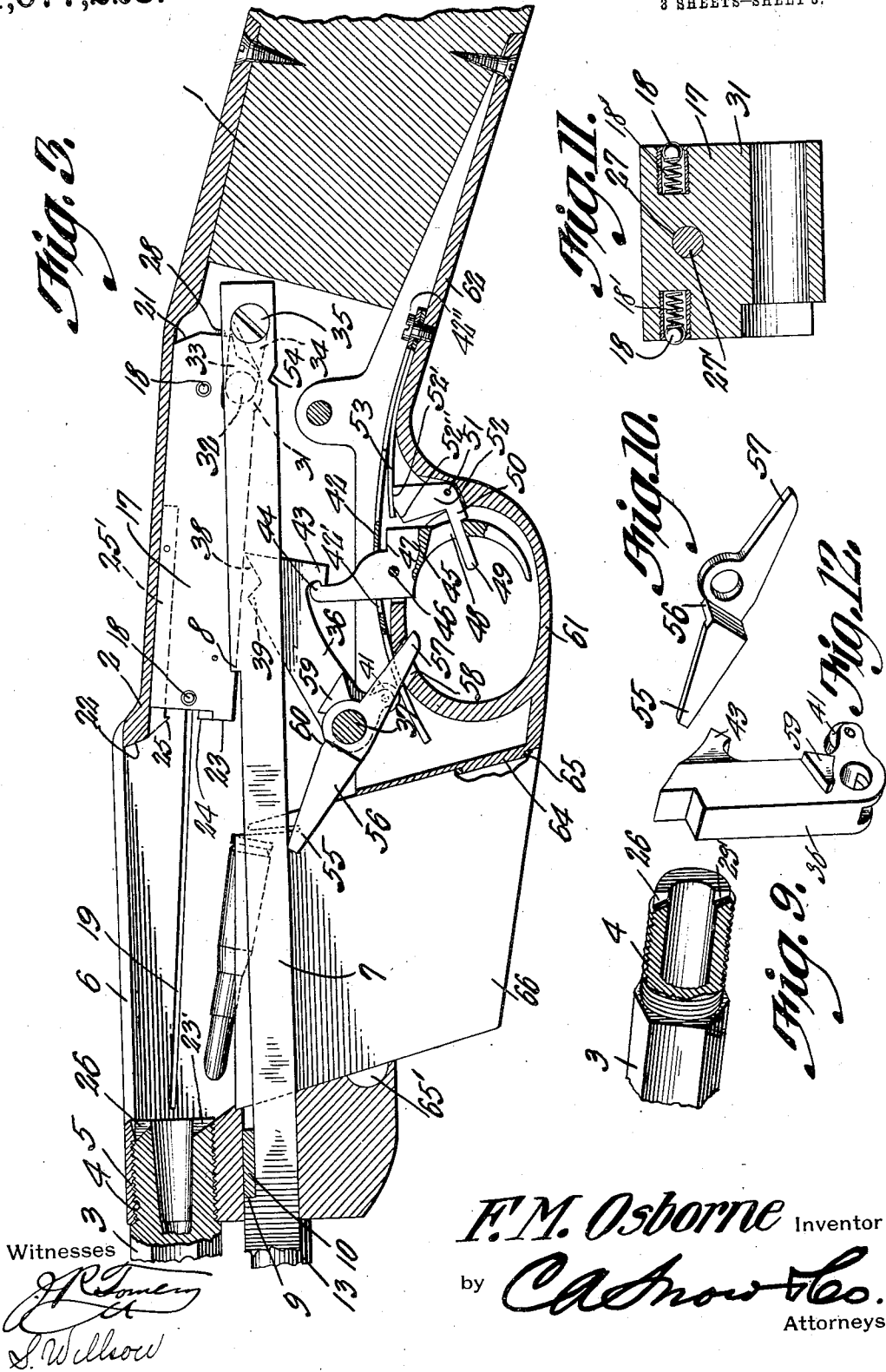


Fig. 7.



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1,077,228.



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# UNITED STATES PATENT OFFICE

FRANK M. OSBORNE, OF ANACONDA, MONTANA.

## REPEATING FIREARM.

1,077,228.

Specification of Letters Patent.

Patented Oct. 28, 1913.

Application filed April 2, 1913. Serial No. 758,466.

*To all whom it may concern:*

Be it known that I, FRANK M. OSBORNE, a citizen of the United States, residing at Anaconda, in the county of Deerlodge and State of Montana, have invented a new and useful Repeating Firearm, of which the following is a specification.

The present invention relates to improvements in repeating firearms, the primary object of the present invention being the provision of a repeating firearm of the type in which the cartridge magazine is mounted within the receiver to elevate and direct the cartridge to the barrel, the fore-arm action being used to properly retract, project and lock the breech block in breech closing position, a hammer being provided with means for releasing the lock during the actuation of the firing pin and with further means for bracing the rear of the breech block against retrograde movement during the explosion of a cartridge.

A further object of the present invention is the provision of means for manually releasing the breech block lock when it is desired to retract the breech block without releasing the cocked hammer.

A still further object of the present invention is the provision of a fore-arm actuated repeating fire-arm in which the connection between the fore-arm and the breech block is so positioned as to form a wedging brace for the rear end of the breech block when in breech closing position, there being a lock provided to automatically engage the fore-arm device to lock the same against retraction.

A still further object of the present invention is the provision of coöperable means carried by the hammer and the breech block which during the projection of the firing pin will provide a connection between the hammer and the breech block to form an auxiliary lock for the breech block during the explosion of the cartridge.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings—Figure 1 is a side ele-

vation of the intermediate portion of a fire-arm showing the fore-arm device and receiver in full side elevation. Fig. 2 is a longitudinal sectional view through a portion of the barrel and stock and the entire receiver and magazine with the hammer in the position it assumes after having exploded a cartridge, dotted lines illustrating the position of the hammer and lock before the release of the hammer. Fig. 3 is a view similar to Fig. 2 with the exception of the magazine being shown in elevation, with the breech block in full retracted position. Fig. 4 is a section taken on line 4—4 of Fig. 2. Fig. 5 is a detail top plan view of the magazine. Fig. 6 is a perspective view of the link between the fore-arm actuated mechanism and the rear end of the breech block. Fig. 7 is a detail view of the rear end of the hand grip of the fore-arm actuated plate, said plate being shown in cross section. Fig. 8 is a rear elevation of the breech block hammer and adjacent parts removed from the receiver. Fig. 9 is a fragmentary sectional view of the breech of the barrel. Fig. 10 is a perspective view of the fore-arm lock. Fig. 11 is a cross section taken on line 11—11 of Fig. 2 showing the construction of the breech block at such point.

Referring to the drawings, the numeral 1 designates the stock, 2 the receiver and 3 the barrel. The barrel, as shown, is provided with the reduced threaded portion 4 which forms a detachable connection with the threaded portion 5 of the receiver so that the barrel may be detached. As shown in Fig. 4, the longitudinal slot 6 is formed in one wall of the receiver, said slot being open to the front and having disposed for reciprocation therewithin the fore-arm actuated plate 7, which as shown is provided with the recess upon the upper edge having the rear shoulder 8 and the front shoulder 9, this recessed portion and the respective shouldered portions thereof coacting with the block 10 detachably connected, as shown in Fig. 1, with one wall at the front end of the receiver and providing a means to limit the reciprocatory movement of the plate 7 in the projection and retraction of the breech block 17, as will presently appear.

The grip 11 carries the metal sleeve 12 which is connected to the forward end of the plate 7, said sleeve 12 being slidably mounted upon the tube 13 whose inner end

is threaded as at 14 to the adjacent portion of the receiver below the barrel 3, while the outer slotted end 14' thereof is projected beyond and through the supporting strap 15, which as at 16 is reinforced and brazed or otherwise connected to the under side of the barrel 3. By this construction, the barrel 3 and tube 13 may be detached from the receiver.

Disposed for retraction and projection to and from the breech of the barrel 3 within the receiver and also a closure when in breech closing position for the cartridge directing slot 6 of the receiver, is the breech block 17, the same having provided in its respective walls at opposite points, the anti-frictional balls 18 which are resiliently held projected by the springs 18' and are adapted to ride in the respective oppositely disposed grooves 19 formed in the opposed walls of the receiver, as clearly illustrated in Figs. 2, 3, 4 and 11, or to be depressed against their springs and housed within the breech block 17, as will presently appear. Although two sets of bearings 18 and grooves 19 are shown, it is evident that the one upon the left as viewed in Fig. 11, is all that is absolutely essential. When the breech block 17 is in breech closing position, as shown in Fig. 2, its rear inclined wall 21 is disposed to engage the upper edge of the rear inclined wall 22 of the receiver, the forward cartridge extractor end 23 being seated within the recessed portion 23' of the barrel 3 so that the firing pin bore 27 of the breech will be presented in axial alinement with the fulminating cap of the cartridge C seated within the breech of the barrel.

At the forward end of the breech block is mounted the sliding spring propelled ejector 24, while the edge 23 below the ejector is designed to act as means, when the breech block is moved from the position as shown in Fig. 3 to that shown in Fig. 2, to engage the upper projected portion of the base of the uppermost cartridge C so as to assist in directing the bullet end to and within the breech of the barrel.

Pivotaly connected to and bodily carried by the breech block 17, at the upper end thereof and having its hooked terminal 25 projected beyond the front end of the breech block 17, is the cartridge extractor 25' whose hooked end 25 when the breech block is in breech closing position projects within the recess 26 at the rear end of the barrel 3 and the receiver 2 and in such a manner that when the breech block is initially started in its retracted position, the rear end being tilted downwardly and the forward end upwardly, that the upper inclined portion of the recess 26 will be engaged by to depress the free end of the hook 25 and cause the hook to engage the rim of the exploded cartridge C within the breech of the barrel so

that such exploded cartridge shell will be gripped between the hook 25 and the ejector 24 and be drawn rearwardly being finally snapped outwardly and upwardly, by the spring propelled ejector 24, through the slot 6 of the receiver, this being accomplished before the breech block 17 is in the full retracted position as shown in Fig. 3, and before the uppermost cartridge within the magazine 66 has had its bullet end tilted upwardly and directed toward the breech of the barrel.

Carried bodily within the bore 27 of the breech block is the firing pin 27', whose enlarged hammer receiving end 28 is projected beyond the rear end of the breech block 17, the pin 32 and notch 30, as shown in Fig. 2, providing a means for limiting both the forward and rearward movement of the firing pin.

The breech block 17, at its rear lower corner, is provided with the apertured lug 31 in which is pivotally mounted the pin 32, which has connected to one end thereof, the link 33 and the wedging block 34, the screw 35 being provided for attaching the link 33 to the rear end of the breech block actuating plate 7. With this construction it will be seen that when the fore-arm grip 11 is moved in a straight line toward the receiver, that the link 33 will be slightly inclined or flexed relatively to the plate 7 and the breech block and tilt the rear end of the breech block, due to the swinging of the link, thus disconnecting the portion 21 from the wall 22 of the receiver, the link 33 being swung rearwardly to finally assume the position as shown in Fig. 3, so that the plate 7 will exert a direct pull upon the block 17 to move it into the position as shown in Fig. 3, with the anti-frictional balls gliding within the opposed races or grooves 19. Upon the forward movement of the fore-arm plate 7, the breech block will be guided in the grooves 19 and the under portion of the receiver 2. The forward anti-frictional balls 18 due to the upward pressure exerted by the link 33 upon the rear end of the breech block 17 tend to ride upon the lower edges of the grooves 19, the rear anti-frictional balls 18 at the time they reach the point at which the rear end of the breech block 17 is elevated, are moved out of the groove 19 and upon the inner faces of the receiver, the movement of the link 33 from the forward position, as shown in Fig. 3, to the perpendicular position as shown in Fig. 2, causing such action. During the movement of the breech block 17 rearwardly from the position shown in Fig. 2 to that shown in Fig. 3, the hammer 36 which is pivoted upon the removable pin 37 within the receiver, has its upper end engaged by the rear end of the breech block, and finally the under side of the breech block, the hammer being tilted

rearwardly to assume the cocked position as shown in Fig. 3, wherein its trigger engaging terminal or hook 43 will be placed in engagement with the hooked terminal 44 of the trigger 45.

The hammer 36, as clearly shown, is of peculiar formation and is provided with the firing pin engaging the upper end 38 and the inclined shouldered portion 39, the said inclined shouldered portion 39 being disposed to engage the shouldered portion 40 at the rear of the breech block 17 so that when the hammer 36 is in the perpendicular position, as shown in Fig. 2, that is at the end of its firing pin engaging stroke, the portions 39 and 40 will engage and the breech block will be provided with an auxiliary lock at such point and during the explosion of the cartridge C within the barrel. A roller carrying lug 41 is formed upon the hammer and has bearing thereagainst, the flat spring 42. The spring 42 is slotted at 42' to fit about the catch 44 of the trigger, the rear end of the spring being secured by means of the screw 42'' to and in the receiver.

The trigger 45 is pivoted within the receiver as at 46, one free end of the spring 47, which has one end held by the screw 42'', being disposed to hold the catch 44 into resilient locking engagement with the hook 43 of the hammer 36, and while in order to provide a safety device to prevent the movement of the trigger to release the hammer, the trigger within the guard 61 is slotted as at 48, for the projection of the reduced end 49 of the pivoted trigger lock 50. This trigger lock 50 is pivoted, as at 51, to the rear portion of the guard 61 and is provided with the incased lug or arm 52 whose upper edge is provided with the two inclined faces or shouldered portions 52' and 52'', one at a time of which is engaged by the free end of flat spring 53, which is held in place by the screw 42'', so that the shouldered portions of the trigger lock will be disposed in triggerlocking position, as shown in Fig. 2, or be held so that the slot 48 may be moved freely upon the lower terminal of the trigger lock when it is desired to release the hammer.

It is desirable that when the breech block 17 is in breech closing position and the breech of the barrel is loaded, that the forearm plate 7 be locked against accidental retraction, and in order to accomplish this and at the same time to provide a means which will be properly released after the hammer has been thrown to explode the fulminating cap of the cartridge, a lock 56 is provided. This lock 56, as clearly shown in Figs. 2 and 3 is swingingly mounted upon the pin 37 and also forms the support for the hammer 36, and has its inner terminal 55 disposed to engage the notch 54 formed in the

under side of the plate 7, the terminal 57 of this lock being disposed through the slot 58 formed in the guard 61 and in ready access to the finger of the marksman so that the end 55 may be disengaged from the plate 7 to permit of the manual operation of the plate 7 should it be desired to remove the cartridge from the barrel without causing the explosion thereof. The extended end 47' of the spring 47 normally engages the finger engaging terminal 57 of the lock 56 so as to normally hold the plate engaging end 55 upwardly and toward the plate to seat within the slot 54 when the breech block 17 is in breech closing position.

In order to provide a means for automatically releasing the lock 56 so that the forearm plate 7 may be retracted without the necessity of manually actuating the lock 56 after the explosion of the cartridge within the barrel, the shouldered portion 60 is provided upon the lock 56 and is in the path to be engaged by the lug 59 formed upon one side of the hammer 36. Under normal conditions, when the hammer is cocked and the breech block is closed, with an unused cartridge within the breech of the barrel, the engaging end 55 of the lock 56 will be seated within the slot 54 of the plate 7, the spring 47' holding the same in such position. Upon the release of the hammer 36 through the actuation of the trigger 45, the lug 59 will engage the shouldered portion 60 of the lock 56 and move the lock to the position as shown in Fig. 2 with the end 55 out of the notch 54 of the plate 7.

The trigger guard 61 is provided with the stock engaging terminal 62, while the forward portion 63 thereof is provided with the projection 64 which is disposed to project within the aperture 65 formed in the rear lower wall of the cartridge magazine 66. By this means the cartridge magazine is retained in the desired position relatively to the receiver and the guard thus provides a ready means in combination with the lug 65' for retaining the magazine in fixed relation to the receiver. This magazine is provided with the elevating spring 67, disposed within the bottom of the magazine and acting upon the elevating plate 68 which, as shown in Fig. 4, is angular in cross section so as to provide a ready means for following the various cartridges C upwardly within the magazine so that the last cartridge will be properly presented to the upper open end of the magazine and in ready position to be introduced within the breech of the barrel. To provide a means for properly engaging the base of the cartridge so as to permit of the proper elevation of the bullet end thereof without the magazine for introduction within the breech of the barrel, the upper rear ends at the top of the magazine are bent in as at 69 so

as to present a sufficient portion of the base of the uppermost cartridge to the projection 23 of the breech block 17 in its movement from the position shown in Fig. 3 to that shown in Fig. 2, the uppermost cartridge as shown in Fig. 3 when the breech block 17 is in retracted position, having its bullet end moved upwardly and directed to the lower inclined surface portion of the breech of the barrel. By this means when the portion 24 engages the rim or base of the cartridge, in the projection of the breech block to breech closing position, the uppermost cartridge is properly directed into the breech of the barrel.

From the foregoing description, taken in connection with the drawings, it is evident that with a repeating fire-arm constructed according to and embodying the present invention, that the fore-arm plate 7 in its retracting movement will cause the deflection or swinging of the link 33 due to the straight line movement of the plate 7, so that the rear end of the breech block 17 will be moved downwardly and inclinedly within the receiver below the portion of the receiver adjacent the trigger 45, the extracting hook 25 being moved downwardly and into engagement with the rim of the used cartridge within the barrel so that such shell will be moved backwardly with the breech block to be snapped out of the aperture 6 of the receiver 2 before the breech block has assumed the full retracted position as shown in Fig. 3. Simultaneously with the movement of the breech block 17 from the position shown in Fig. 2 to that shown in Fig. 3, the rear portion of the breech block will engage the upper free end of the hammer 36 moving the same downwardly against the tension of its spring 42 and causing the hooked end 43 to engage the hooked end 44 of the trigger 45, the trigger thus retaining the hammer 36 in its cocked position before the breech block is moved forwardly into its breech closing position. Upon the movement of the breech block 17 forwardly, from the position shown in Fig. 3 to that shown in Fig. 2, the projection 23 at the front end of the breech block 17 will engage the exposed portion of the base of the uppermost cartridge within the magazine 66, and as the elevator of the magazine due to the engagement of the inturned portion 69 of the magazine with the base of the uppermost cartridge, has tended to lift the bullet end of the cartridge toward the breech of the barrel 3, the breech block will be assisted in its directing movement and will upon its projected movement move the cartridge from the position shown in Fig. 3 to that shown in Fig. 2 to seat the same and lock it within the breech of the barrel. Before the final seating of the cartridge within the barrel, the continued forward

movement of the plate 7 will cause the link 33 to move from the inclined position as shown in Fig. 3 to the perpendicular position as shown in Fig. 2, and thus elevating such rear end to the position as shown in Fig. 2, and bracing it so that the breech block completely closes the aperture 6 of the receiver and properly holds the cartridge within the barrel. As the locking end 55 of the lock 56 is held normally upwardly and resiliently in engagement with the under edge of the plate 7, the same will automatically engage the notch 54 of the plate 7 when the same has moved the breech block into breech closing position and it thus provides a lock against the accidental displacement of the breech block and also provides a means so that the hand grip 11 may be rigidly grasped for the manipulation of the fire-arm. As before described, the release of the hammer 36 by means of the trigger 45 and the propulsion thereof accorded by the spring 42 will cause the lug 59 to engage the shoulder 60 of the lock 56 and move the same from the dotted line position Fig. 2 to the full line position thereof, so that the fore-arm plate 7 will be released and the same may be readily retracted manually to project the used shell and the unused shell as before described.

By means of the shouldered portions 52' and 52'' of the safety trigger lock 50, the said lock may be held in either safety or trigger releasing position as desired, it requiring manual manipulation to move it from one position to the other, of vice versa.

It will be noted that when the forearm plate is pulled forwardly so that the plate 7 assumes the position, as shown in Fig. 2, with the shoulder of the cut away portion 8 held against forward movement by the block 10, that the link 33 will be in a vertical position, due to the seating of the forward end of the breech block at the breech end of the barrel and as the end of the breech block remote from the breech of the barrel is pivotally connected to the link 33, the movement of the link 33 to such vertical position will force the portion 21 of the breech block into engagement with the portion 22 of the receiver, and thus the link 33 in such vertical position will act as a brace or locking means to hold the rear end of the breech block in such position. By this means it will be seen that the recoil from the cartridge C in the barrel, due to the explosion thereof, will be prevented from having a tendency to tilt the rear end of the breech block downwardly due to the locking and bracing effect of the vertically disposed link 33, while the movement of the hammer from the dotted to the full line position Fig. 2, will produce an augmenting brace at the rear end of the breech block and thus additionally hold the same against down-

ward tilting movement. When the plate 7 is moved rearwardly, the first tendency of the link 33 is to swing rearwardly and as the plate 7 has a straight line movement, the rear end of the breech block is the only element that must give to this movement and consequently the same will lower initially so that the upper face thereof will be disposed below the upper inclined covered portion of the receiver and be finally drawn to the position, as shown in Fig. 3. By means of the lug 59 formed integral with and carried by the hammer, and as particularly shown in detail in Fig. 12, the same will, when the hammer is moved from the dotted line position Fig. 2, to the full line therein, engage the shouldered portion of the forearm lock 56 and thus depress the locking end 55 thereof from the recess 54 of the forearm plate 7, so that when it is desired to open the breech, it is simply necessary to push the forearm plate 7 rearwardly. The lug 59 is so positioned, as to require but a slight movement to move the forearm lock 56 from the dotted line to the full line position Fig. 2, such movement being practically simultaneous with the engagement of the hammer with the firing pin.

What is claimed is:

1. A repeating firearm, including a stock, a receiver, a barrel, a reciprocatory breech block mounted within the receiver, a forearm breech block actuator mounted for reciprocation below the barrel and operably connected to the breech block, a spring actuated means for locking the breech block actuator against rearward movement when the breech block is in breech closing position, a hammer, a trigger, means carried by the hammer for releasing the spring actuated locking means during the firing movement of the hammer, and coöperable means carried by the hammer and breech block for forming an auxiliary lock for the breech block during the explosion of a cartridge.

2. A repeating firearm, including a stock, a receiver, a barrel, a reciprocatory breech block mounted within the receiver, a forearm breech block actuator mounted for reciprocation below the barrel and operably connected to the breech block, a spring actuated means for locking the breech block actuator against rearward movement when the breech block is in breech closing position, a hammer, a trigger, means carried by the hammer for releasing the spring actuated locking means during the firing movement of the hammer, coöperable means carried by the hammer and breech block for forming an auxiliary lock for the breech block during the explosion of a cartridge, and manually controlled means for releasing the lock to permit the retraction of the breech block without the release of the hammer.

3. A repeating firearm, including a stock, a receiver, a magazine mounted within the receiver, a barrel, a reciprocatory breech block mounted within the receiver, manually controlled means for retracting and projecting the breech block, a connection between said means and the rear end of the breech block forming when the breech block is in breech closing position a brace locking means therefor, a hammer, and a trigger.

4. A repeating firearm, including a stock, a receiver, a magazine mounted within the receiver, a barrel, a reciprocatory breech block mounted within the receiver, manually controlled means for retracting and projecting the breech block, a connection between said means and the breech block forming when the breech block is in breech closing position, a brace and an operating connection therefor, said brace being connected to the rear of the breech block, a hammer, a trigger, a spring actuated lock for locking the breech block manually controlled means against retraction when the breech block is in breech closing position, and means carried by the hammer for releasing the lock during the release of the hammer.

5. A repeating firearm, including a stock, a receiver, a magazine mounted within the receiver, a barrel, a reciprocatory breech block mounted within the receiver, manually controlled means for retracting and projecting the breech block, a connection between said means and the breech block forming when the breech block is in breech closing position, a brace therefor, such connection being at the rear end of the breech block, a hammer, a trigger, a spring actuated lock for locking the breech block manually controlled means against retraction when the breech block is in breech closing position, means carried by the hammer for releasing the lock during the release of the hammer, and manually controlled means for releasing the lock to permit of the retraction of the breech block without releasing the hammer.

6. A repeating firearm, including a stock, a receiver, a magazine mounted within the receiver, a barrel, a reciprocatory breech block mounted within the receiver, manually controlled means for retracting and projecting the breech block, a connection between the said means and the breech block forming when the breech block is in breech closing position, a brace therefor, such connection being at the rear end of the breech block, a hammer, a trigger, a spring actuated lock for locking the breech block manually controlled means against retraction when the breech block is in breech closing position, means carried by the hammer for releasing the lock during the release of the hammer, and coöperable means carried by the hammer and the rear end of the

breech block for forming an auxiliary brace during the explosion of a cartridge.

7. A repeating firearm, including a stock, a receiver, a magazine mounted within the receiver, a barrel, a reciprocatory breech block mounted within the receiver, manually controlled means for retracting and projecting the breech block, a connection between said means and the rear end of the breech block forming when the breech block is in breech closing position a wedging brace therefor, a hammer, a trigger, a spring actuated lock for locking the breech block manually controlled means against retraction when the breech block is in breech closing position, means carried by the hammer for releasing the lock during the release of the hammer, coöperable means carried by the hammer and the rear end of the breech block for forming an auxiliary brace during the explosion of a cartridge, and manually controlled means for releasing the lock to permit the retraction of the breech block without releasing the hammer.

8. A repeating firearm, including a stock, a receiver, a barrel, a breech block mounted for reciprocation within the receiver, a reciprocatory plate mounted within the receiver, a connecting link pivoted to the rear end of the plate and the rear end of the breech block, means for manually reciprocating the plate to retract and project the breech block, said link when the breech block is in breech closing position bracing and holding the rear end of the breech block rigidly within the receiver, a firing pin carried by the breech block, a hammer, and a trigger.

9. A repeating firearm, including a stock, a receiver, a barrel, a breech block mounted for reciprocation within the receiver, a reciprocatory plate mounted within the receiver, a connecting link pivoted to the rear end of the plate and the rear end of the breech block, means for manually reciprocating the plate to retract and project the breech block, said link when the breech block is in breech closing position bracing and holding the rear end of the breech block rigidly within the receiver, a firing pin carried by the breech block, a hammer, a trigger, a spring actuated lock for engaging the plate to lock the same against retraction when the breech block is in breech closing position, and means carried by the hammer for engaging the lock upon the release of the hammer.

10. A repeating firearm, including a stock, a receiver, a barrel, a breech block mounted for reciprocation within the receiver, a reciprocatory plate mounted within the receiver, a connecting link pivoted to the rear end of the plate and the rear end of the breech

block, means for manually reciprocating the plate to retract and project the breech block, said link when the breech block is in breech closing position bracing and holding the rear end of the breech block rigidly within the receiver, a firing pin carried by the breech block, a hammer, a trigger, a spring actuated lock for engaging the plate to lock the same against retraction when the breech block is in breech closing position, means carried by the hammer for engaging the lock upon the release of the hammer, and manually controlled means for releasing the lock to permit the retraction of the breech block without releasing the hammer.

11. A repeating firearm, including a stock, a receiver, a barrel, a breech block mounted for reciprocation within the receiver, a reciprocatory plate mounted within the receiver, a connecting link pivoted to the rear end of the plate and the rear end of the breech block, means for manually reciprocating the plate to retract and project the breech block, said link when the breech block is in closing position bracing and holding the rear end of the breech block rigidly within the receiver, a firing pin carried by the breech block, a hammer, a trigger, and coöperable means carried by the engaging portions of the breech block and hammer for forming an auxiliary lock for the rear end of the breech block during the explosion of a cartridge.

12. A repeating firearm, including a stock, a receiver, a barrel, a breech block mounted for reciprocation within the receiver, a reciprocatory plate mounted within the receiver, a connecting link pivoted to the rear end of the plate and the rear end of the breech block, means for manually reciprocating the plate to retract and project the breech block, said link when the breech block is in closing position bracing and holding the rear end of the breech block rigidly within the receiver, a firing pin carried by the breech block, a hammer, a trigger, a spring actuated lock for engaging the plate to lock the same against retraction when the breech block is in breech closing position, means carried by the hammer for engaging the lock upon the release of the hammer, and coöperable means carried by the engaging portions of the breech block and hammer for forming an auxiliary lock for the rear end of the breech block during the explosion of a cartridge.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

FRANK M. OSBORNE.

Witnesses:

THOMAS DOYLE,  
FRANK T. FORD.