

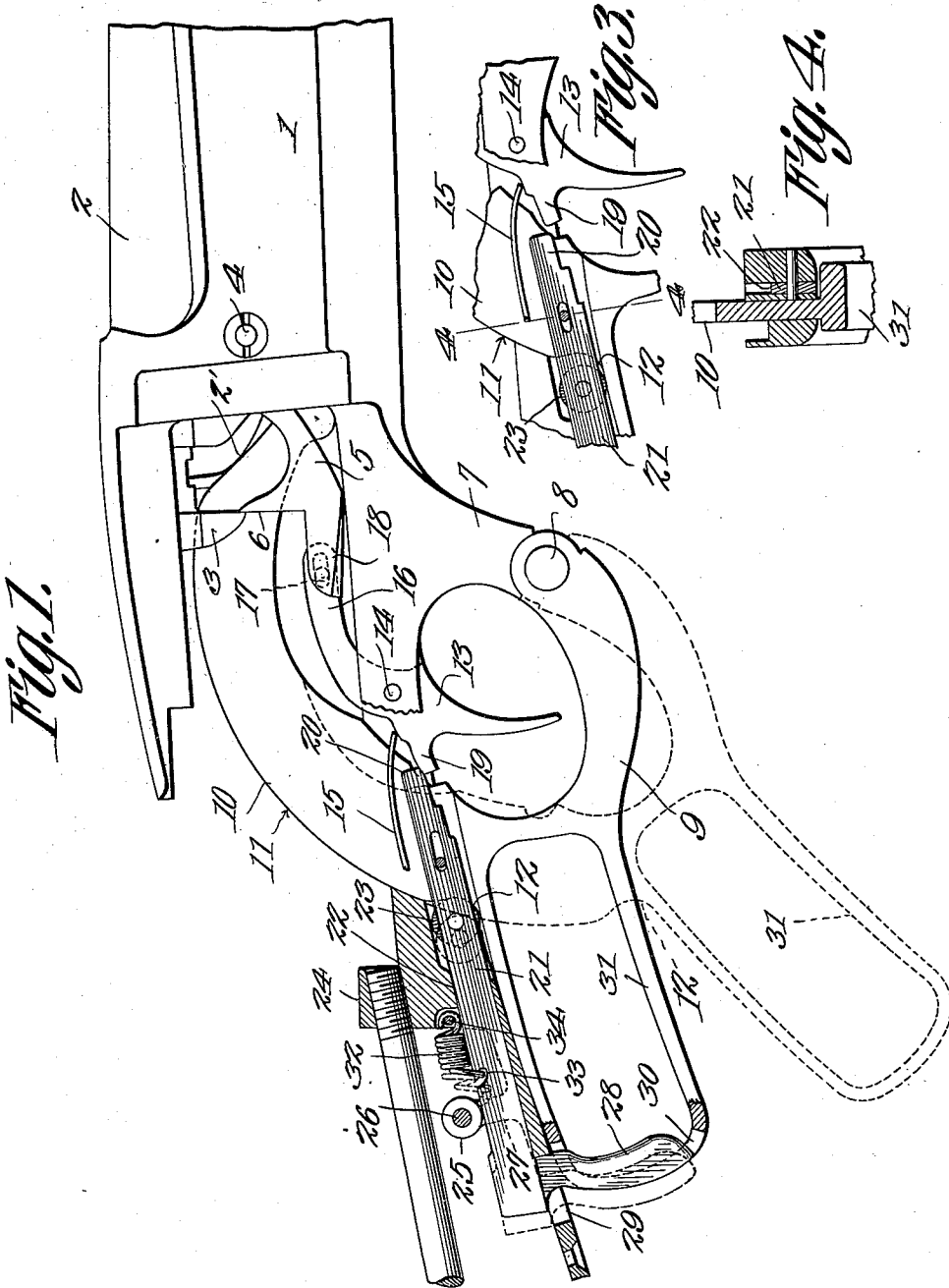
M. L. CASTLE.
FIREARM.

APPLICATION FILED DEC. 17, 1913.

Patented Mar. 24, 1914

2 SHEETS—SHEET 1.

1,091,190.



Witnesses
J. R. G. Meier
S. Willard

Marcus L. Castle Inventor,
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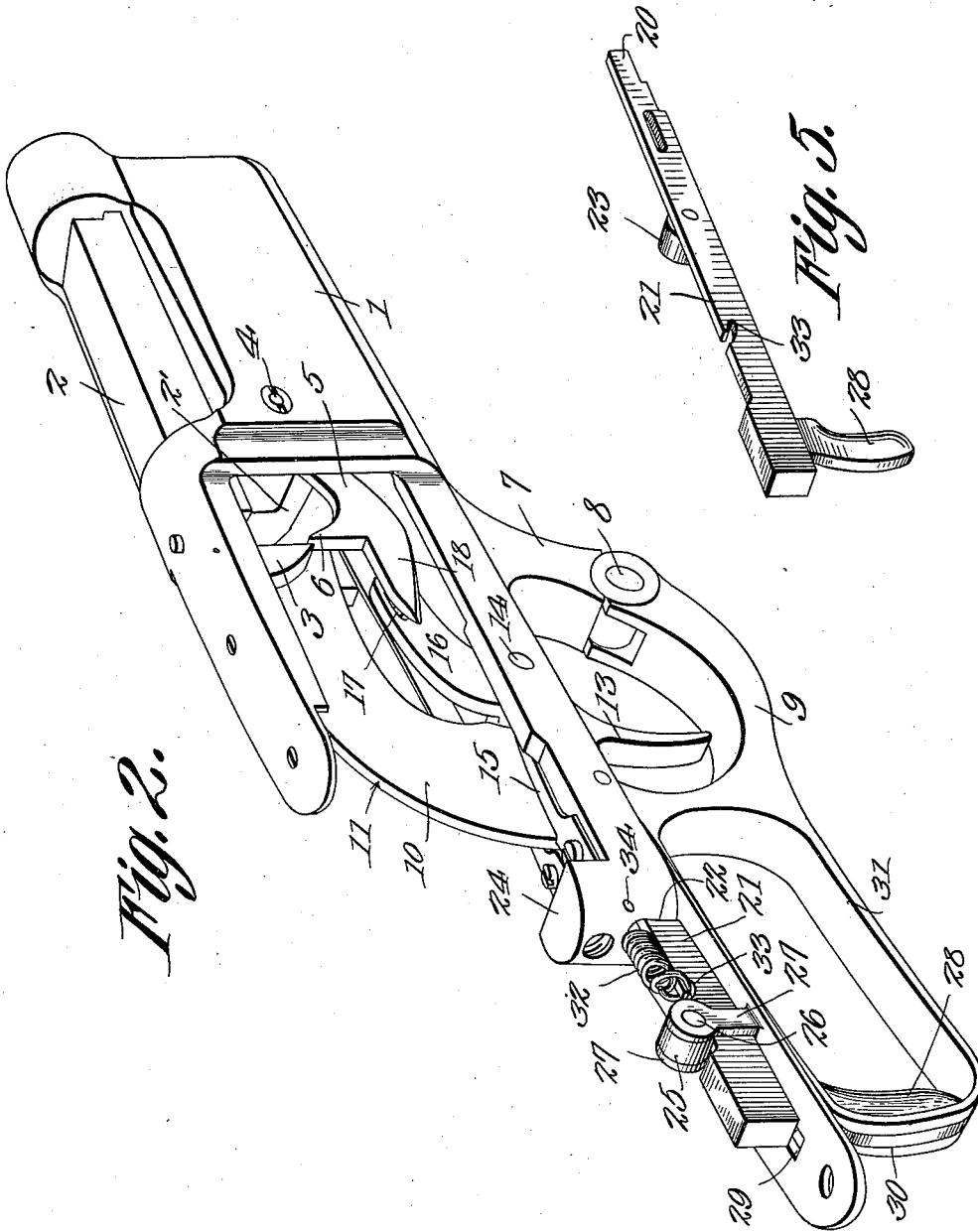
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UNITED STATES PATENT OFFICE.

MARCUS L. CASTLE, OF MALONE, NEW YORK.

FIREARM.

1,091,190.

Specification of Letters Patent.

Patented Mar. 24, 1914.

Application filed December 17, 1913. Serial No. 807,257.

To all whom it may concern:

Be it known that I, MARCUS L. CASTLE, a citizen of the United States, residing at Malone, in the county of Franklin and State of New York, have invented a new and useful Firearm, of which the following is a specification.

The present invention relates to improvements in firearms, one object being the provision of means by which the trigger in a repeating firearm is locked so as to prevent the accidental actuation thereof to release the hammer, such device being provided with actuating means which is instinctively released when the firearm is placed to the shoulder for firing, the hand gripping the stock of the gun assuming a natural position to actuate the same to release simultaneously with the pulling of the trigger, there being provided means which operate the present device as the breech block is being retracted to eject a shell and during the projection of a new shell within the barrel, such lock automatically engaging the trigger when the lever action is in locked position and the gun is loaded ready for firing.

A further object of the present invention is the adaptation of the safety device as set forth in my U. S. Letters Patent No. 1,074,046, granted to me September 23, 1913, to a Savage repeating rifle of the lever type, the curved member of the lever for operating to reciprocate the breech block constituting a means for permitting the engagement and disengagement of the present safety device from and with the trigger, said safety device being in such a position as to be readily actuated instinctively when the gun is put to the shoulder for firing.

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 partly in section of the receiver and breech block actuating mechanism of a Savage repeating rifle with the present invention applied thereto. Fig. 2 is a rear perspective view of the same showing the parts in the position they assume when the safety device is locking the trigger and the hammer is cocked. Fig. 3 is a detail view showing the retracted position of the safety device when the same has been instinctively operated to release the trigger. Fig. 4 is a section on line 4-4 of Fig. 3. Fig. 5 is a perspective view of the safety locking bar *per se*.

Referring to the drawings, the numeral 1 designates the receiver which has mounted therein for reciprocation, the hammer carrying breech block, which has mounted therein the hammer (not shown) provided with the hooked end 3. The pin 4 constitutes a pivoting means for the sear 5 whose terminal 6 is disposed to be placed into engagement with the hook 3 of the hammer to lock the same in cocked position as the breech block 2 is properly seated within the receiver to position a cartridge within the barrel (not shown) and to lock the parts in the position, as shown in Figs. 1 and 2.

The projection 7 which is carried by and projects below the receiver has pivotally connected thereto at 8, the lever 9 which carries therewith, the curved arm or segment 10, the upper edge 11 of which is curved on a circle, the center of which is the center of the pin 8. The forward end of this curved member or segment 10 is disposed to engage the projecting portion 2' of the breech block, so as to assist in retracting and projecting the same when the lever and the segment 10 are moved from the full to dotted line position, and vice versa, as illustrated in Fig. 1. The segment 10 upon its upper edge adjacent to the hand grip 31 is recessed as at 12, the purpose of which will presently appear.

The trigger 13 is pivoted in the receiver by means of the pin 14 and is held in proper relation by means of the flat spring 15, the projecting end 16 being disposed forwardly and connected by means of the pin and slot connection 17 to the rearwardly projecting end 18 of the sear 5. By this

means it will be seen that the pull upon the trigger 13 will cause the depression of the member 16 and consequently the sear 5 so that the terminal 6 will be released from the hook 3 of the hammer. The trigger 13 is provided with the rearwardly projecting lug 19, which constitutes the abutting means to hold the same in "safety" by means of the reduced end 20 of the sliding bar 21. This bar 21 constitutes the safety means which is mounted through the slot 22 of the projection 24 of the receiver, the roller 23 being carried by the bar or plate 21 and in such position as to ride upon the curved edge 11 of the segment 10, the same, when seated in the recess 12, as clearly illustrated in Fig. 1, permitting the spring 32 to project the end 20 to engage the upper side of the lug 19 of the trigger 13 so that it is impossible to move the trigger rearwardly to depress the sear releasing member 16 thereof. The two lugs 27 constitute a guide for the rear end of the bar or plate 21, a pin 26 carrying the roller 25 which provides an anti-frictional means bearing upon the upper surface of the bar or plate 21. An aperture 29 is provided in the rear end of the receiver for the projection therethrough of the auxiliary trigger 28, which is the means for actuating the bar or plate 21 against the tension of its spring 32, said auxiliary trigger being mounted in the slotted end 30 of the hand grip 31 of the lever 9.

The spring 32, as clearly illustrated, is connected in the notch 33 formed in the upper surface of the bar or plate 21 while its forward end is connected to the pin 34 fitted in the recess of the boss or projection 24 of the receiver. This spring is so constructed as to exert a tension to hold the end 20 of the bar or plate 21 above and in engagement with the projecting end 19 of the trigger 13. Thus it will be seen that the trigger 13 though pulled rearwardly cannot be moved so as to depress the sear releasing member 16 as long as the safety bar 21 is in the position as shown in Fig. 1.

In operating the present device, with the hand gripping the stock of the gun, and with three or four fingers through the finger grip 31 thereof, and the forefinger engaging the trigger 13, it is apparent that the instinctive gripping of the stock, when the gun is placed to the shoulder for firing, will cause the auxiliary trigger 28 to be moved from the full to the dotted line position, as clearly shown in Fig. 1, thus moving the end 20 of the safety plate or member 21 from above the lug 19 and thus freeing the trigger 13 to operate the sear 5 to release the hook 3 of the hammer.

By mounting the auxiliary trigger in the position as shown, the same is protected

from accidental actuation and by so arranging the trigger 13 and the auxiliary trigger 28, it is apparent that the auxiliary trigger must be operated primarily before the trigger 13 can be actuated. By this means, the safety is automatically thrown in as soon as the hand is removed from the lever 31 in firing position, and that instinctively when the firearm is placed to the shoulder for firing, the bar 21 is released to permit of the proper actuation of the trigger 13. It is also apparent that when the lever is operated from the full to dotted line position and vice versa in Fig. 1, that the roller 23 riding upon the edge 11 of the segment 10 will be actuated to retract the bar 21, thus placing the end 20 out of the path of the lug or projection 19 of the trigger 13 and placing the same thereabove as soon as the parts assume the full line position with the roller 23 seated in the recess 12 of the segment 10.

What is claimed is:

1. A firearm, including a receiver, a breech block, a hammer carried by the breech block, a trigger, said trigger being provided with a rearward projection, coöperable means connected with the trigger and mounted in the receiver for engaging the hammer to hold the same in "cocked" position, a lever pivoted to the receiver, a curved member carried by the lever for movement into and out of the receiver for retracting and projecting the breech block, a spring returned pull bar mounted for reciprocation within the receiver and having its forward end disposed to engage the projection of the trigger to lock the same, and coöperable means carried by the curved member and the bar for retracting the bar during the movement of the lever and for permitting the pull bar to engage the projection of the trigger when the lever has closed the breech block and caused the setting of the hammer.

2. A firearm, including a receiver, a breech block, a hammer carried by the breech block, a trigger, said trigger being provided with a rearward projection, coöperable means connected with the trigger and mounted in the receiver for engaging the hammer to hold the same in "cocked" position, a lever pivoted to the receiver, a curved member carried by the lever for movement into and out of the receiver for retracting and projecting the breech block, a spring returned pull bar mounted for reciprocation within the receiver and having its forward end disposed to engage the projection of the trigger to lock the same, coöperable means carried by the curved member and the bar for retracting the bar during the movement of the lever and for permitting the pull bar to engage with the projection of the trigger

when the lever has closed the breech block
and caused the cocking of the hammer, and
an auxiliary trigger carried by the pull bar
and disposed in rear of the main trigger for
5 manually releasing the pull bar when the
gun is gripped for firing.

In testimony that I claim the foregoing

as my own, I have hereto affixed my signature in the presence of two witnesses.

MARCUS L. CASTLE.

Witnesses:

GEO. HOWARD,

CHARLES J. HAKINS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."