

(No Model.)

L. JONSON.
LOCK FOR FIREARMS.

No. 485,043.

Patented Oct. 25, 1892.

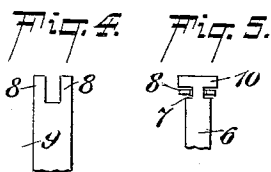
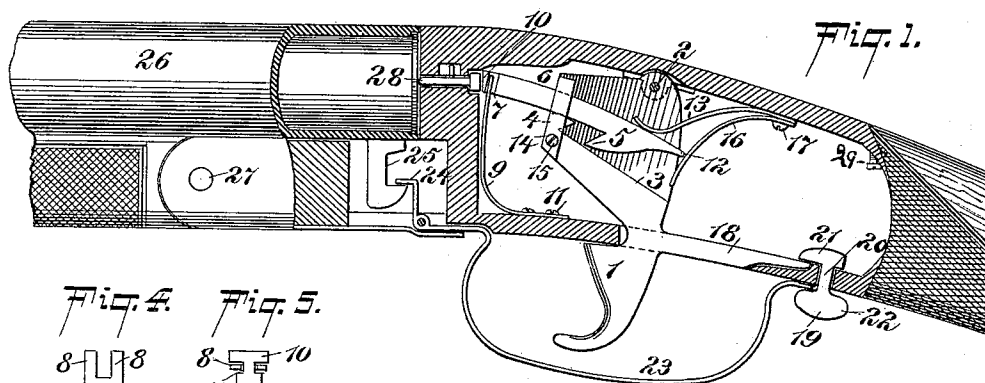


Fig. 2.

Fig. 5.

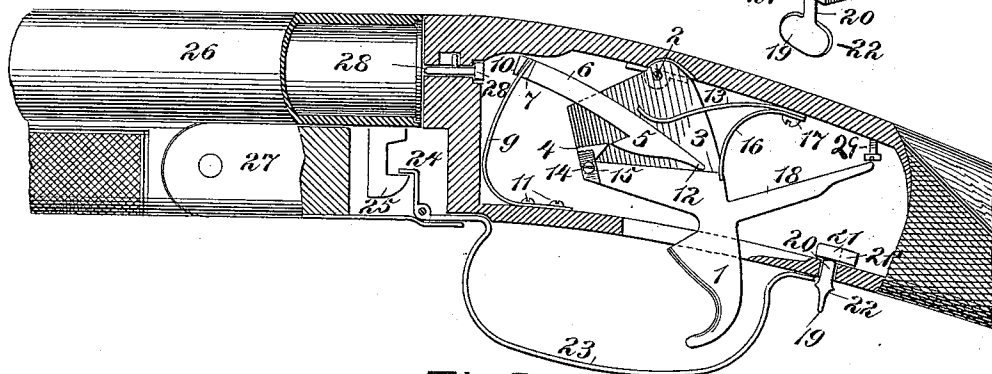
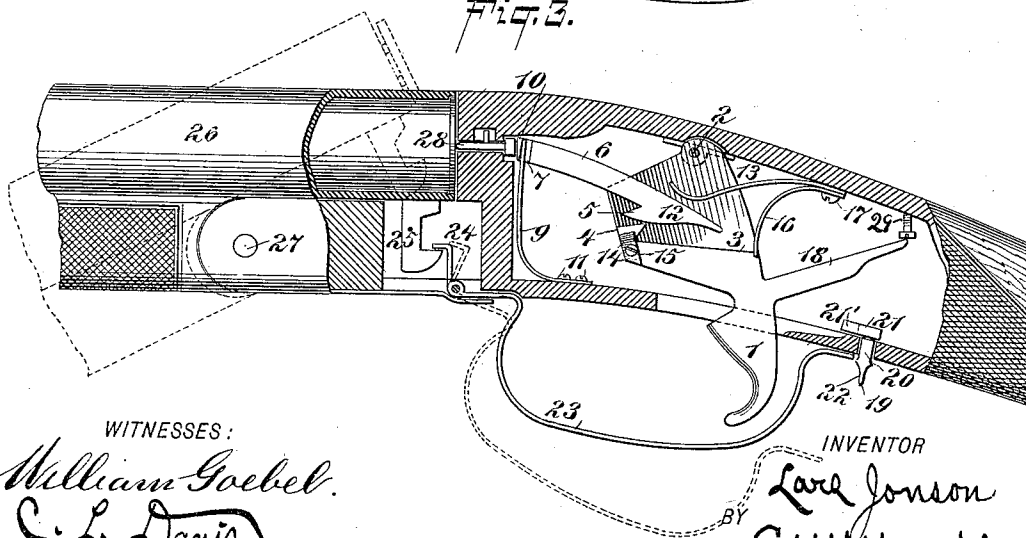


Fig. 3.



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LOCK FOR FIREARMS.

SPECIFICATION forming part of Letters Patent No. 485,043, dated October 25, 1892.

Application filed March 5, 1892. Serial No. 423,871. (No model.)

To all whom it may concern:

Be it known that I, LARS JONSON, a citizen of the United States, and a resident of Escanaba, in the county of Delta and State of Michigan, have invented certain new and useful Improvements in Firearms, of which the following is a specification, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates more particularly to that class of hand-firearms known as "hammerless;" and it consists mainly of a self-cocking lock therefor which differs from the locks heretofore used therein in being extremely simple of construction and consisting of but few parts, and the same is fully shown and described in the following specification, of which the accompanying drawings form a part, wherein similar numerals of reference designate like or equivalent parts wherever found throughout the several views, and in which—

Figure 1 represents a side view of my improved gun-lock at rest, portions of the gunstock being broken away in order to show the mechanism of the lock; Fig. 2, a like view thereof, showing the parts in the position assumed by them just prior to the release of the firing-bolt in the operation of firing; and Fig. 3, a like view showing the position of the parts the instant after firing. Fig. 4 is a rear view of the upper end of the mainspring; Fig. 5, a top plan view of the forward end of the firing-bolt, showing the mainspring engaging therewith; and Fig. 6 is a view in perspective of the trigger and trigger-guard catch.

Referring to the drawings, the numeral 1 designates the trigger, the finger-piece of which is substantially of the common form, as shown, and the same is pivoted to the upper wall of the lock-cavity of the stock, as shown at 2, so as to swing freely backward and forward. The portion of this trigger 1 which is inclosed within the lock-cavity is preferably of substantially the form shown and is provided with a shelf 3, extending longitudinally thereof, having at its forward end a catch or stop 4, adapted to engage with a corresponding catch or stop 5, formed on the lower side of the firing-bolt or hammer 6 some little distance from the rear end thereof, as

shown. The forward end of this firing-bolt or hammer 6, which is preferably of the shape shown, is provided with slots 7 on either side thereof adapted to receive the upwardly-extending prongs 8, formed at the upper end of the mainspring 9 in such manner that the firing-bolt will be normally kept pressed forward by the action of such prongs 8 against the head 10 of such firing-bolt.

The mainspring 9 is of any suitable shape or form, preferably of that shown, and the lower end thereof is secured to the stock in any convenient manner, preferably by means of screws 11.

The firing-bolt or hammer 6 extends rearwardly a considerable distance beyond the catch or stop 5 thereon and ends, preferably, in a slightly-downward-bending point 12, which is kept normally in contact with the shelf 3 of the trigger 1 by a spring 13, the free end of which presses against the top of such firing-bolt, which is kept from slipping sideways off from such shelf 3 by a removable plate 14, which is secured to the shelf 3 of the trigger preferably by means of a screw 15, there being sufficient space between the plate 14 and the upper portion of the trigger above the shelf 3 to allow free movement of the firing-bolt therein. The trigger 1 is kept normally pressed forward by a spring 16, pressing against the rear thereof, which spring is preferably secured to the gunstock by a screw 17, which also serves to hold in position the spring 13.

Extending rearwardly from the lower middle portion of the trigger 1 is an extension 18, by which the same may be locked in a forward position, when desired, by a proper manipulation of the stop or button 19. This stop or button 19 is preferably of the form shown in Fig. 6, consisting of a central stud 20, provided with a head formed by two projections 21 and 21', arranged at right angles to the stud 20 and to each other, located at one end, and with a flat thumb-piece 22 of substantially the form shown located at the other end of such stud, the projections 21 and 21' and the thumb-piece 22 being all of such form as to lock the rear extension 18 of the trigger 1 and the rear end of the trigger-guard 23 in place when turned so as to cover the same. This stop or button 19 is revolvably mounted

in the lower wall of the lock-cavity of the fire-arm, with the projections 21 and 21' within the cavity, and with the thumb-piece 22 without the same, as shown. When turned so that the projection 21 is to the front, the trigger being in its forward position, as shown in Fig. 1, the projection 21 will cover the end of the extension 18 of the trigger 1, so as to lock the trigger firmly in place, and at the same time the thumb-piece 22 will perform the same service for the end of the trigger-guard 23. When, however, the stop is turned into the position shown in Fig. 2, with the projection 21 crosswise the lock-cavity and the projection 21' projecting to the rear, both the trigger and the trigger-guard will be unlocked and capable of free movement, and when the trigger is in the position shown in Fig. 1 and the stop or button 19 is turned into the position shown in Fig. 3, with the projection 21' projecting to the front, while the trigger will be locked, the trigger-guard will be free, and by simply turning the button into its fourth position, (not shown,) with the projection 21 turned to the rear, while the trigger-guard will be locked, the trigger will be free.

The trigger-guard 23 is pivoted at the forward end, as shown, and is provided with a hook 24, adapted to engage with a catch 25, secured to the under side of the barrel 26, which is pivoted at 27 in the usual manner, and the piece is also preferably provided with the usual cartridge-extracting mechanism and with a firing-pin 28 of ordinary form, which transmits the impact of the firing-bolt or hammer 6 to the primer of the cartridge, so as to explode the same when such firing-bolt or hammer 6 is released from the trigger and forced forward by the mainspring 9 in the operation of firing.

A screw 29 is preferably provided and screwed into the top wall of the lock-cavity at the rear end thereof, as shown, against which the end of the extension 18 of the trigger 1 strikes when pulled back far enough to release the firing-bolt, the purpose of this screw 29 being to limit the backward movement of the trigger to exactly the amount necessary for such release of the firing-bolt.

The operation of the device is as follows: The piece being unloaded and the parts in the position shown in Fig. 1, the stop or button 19 is turned either into the position shown in Fig. 2 or that shown in Fig. 3, and the rear end of the trigger-guard 23 being then pressed down into the position shown in dotted lines in Fig. 3 the hook 24 on the forward end thereof is released from the catch 25, secured to the barrel 26, and the weight of the forward end of such barrel as soon as the catch is released will force the same into the position shown in dotted lines in Fig. 3, when, a cartridge being inserted in the usual manner and the barrel and trigger-guard returned to the positions shown in Figs. 1 and 2, the piece is ready for firing. When it is desired to fire the piece, the stop or button 19 is first turned either

into the position shown in Fig. 2 or into that in which the projection 21 is turned toward the rear, when, the trigger being unlocked and free to move, the same is pulled back by pressing against the forward side of the same with the finger in the usual manner, and as it travels backward, swinging upon the pivot 2, the catch 4, engaging with the catch 5 upon the firing-bolt 6, draws back such bolt, which in turn carries back with it the upper end of the mainspring 9 by reason of the engagement of the prongs 8 of such spring with the bead 10 of such bolt until the point 12 at the rear end of such firing-bolt strikes against the shelf 3 of the trigger, and the rear of the firing-bolt is lifted by such shelf, as the trigger is further retracted, until the catch 5 of the bolt 6 clears the catch 4 at the forward end of the shelf 3, when the retracted mainspring 9 will force the firing-bolt 6 forward, and the head 10 of such bolt, impinging with great force upon the rear of the firing-pin 28, will drive the same against the primer of the cartridge in the barrel 26, and the same will be exploded and the piece fired, the position assumed by the various parts of the mechanism of the lock the instant before firing being shown in Fig. 2 and that assumed by them the instant after, being shown in Fig. 3. Upon releasing the trigger after firing the spring 16, pressing against the rear of such trigger, will at once force the same forward into the position shown in Fig. 1, and the spring 16, pressing against the upper side of the rear portion of the firing-bolt or hammer 6, will force the same down upon the shelf 3, so that the catches 4 and 5 will be in position to engage with one another when the trigger is again pulled back, and the parts having thus assumed the position shown in Fig. 1 the device will be again ready for operation, as described.

It is evident that this form of lock may be used with almost any form of breech mechanism; that a form of button or stop 19 for locking the trigger in place different from that shown may be used, and that many modifications in the construction, combination, and arrangement of the various parts of my improved gun-lock may be made without departing from the scope of my invention, and I do not limit myself to any particular form thereof; but,

Having now particularly described my said invention and its construction and operation, what I claim, and desire to secure by Letters Patent, is—

1. In a gun-lock, the combination, with a pivoted trigger having a shelf extending from front to rear thereof, located between the pivot and the finger-piece, of a catch secured to the trigger at the forward side adjacent to the shelf, a firing-bolt having a catch adapted to engage with the catch upon the trigger and provided with a rear extension beyond the catch, adapted to engage with the shelf, and a spring by which the firing-bolt is normally

forced forward, substantially as shown and described.

2. In a gun-lock, the combination, with a firing-bolt, of a spring adapted to keep the same normally pressed forward, engaging such bolt at the forward end thereof, a catch located near the other end of the firing-bolt, a pivoted trigger, a catch secured to the trigger near the forward edge thereof, located between the pivot and the finger-piece and adapted to engage with the catch upon the firing-bolt in such manner as to draw back the firing-bolt when the trigger is retracted, and means attached to the trigger for lifting the rear end of the firing-bolt, so as to release the catches from one another when the trigger is fully retracted, substantially as shown and described.

3. In a gun-lock, the combination, with a pivoted trigger having a shelf extending from front to rear thereof, located between the pivot and the finger-piece, of a catch attached to the trigger adjacent to the forward end of the shelf, a firing-bolt having a catch adapted to engage with the catch upon the trigger and provided with an extension to the rear of the catch, a spring engaging with the firing-bolt and adapted to keep the same normally pressed forward, and a spring engaging with the firing-bolt in such manner as to keep the same normally in contact with the shelf of the trigger, substantially as shown and described.

4. In a gun-lock, the combination, with a pivoted trigger having a shelf extending from front to rear thereof, located between the pivot and the finger-piece, of a catch attached to the trigger adjacent to the forward end of the shelf, a firing-bolt having a catch adapted to engage with the catch upon the trigger and provided with an extension to the rear of the catch, a spring engaging with the firing-bolt and adapted to keep the same normally pressed forward, a spring engaging with the firing-bolt in such manner as to keep the same normally in contact with the shelf of the trigger, and a spring engaging with the trigger in such manner as to keep the same normally pressed forward, substantially as shown and described.

5. In a firearm the breech mechanism of which is operated by movement of the trigger-guard, the combination, with the trigger-guard, of a trigger having a rear extension and a movable stop adapted to engage the

end of the trigger-guard and the end of the extension, so as to lock both the trigger and the trigger-guard in position in such manner as to prevent movement thereof when desired, substantially as shown and described.

6. In a firearm the breech mechanism of which is operated by movement of the trigger-guard, the combination, with the trigger-guard, of a trigger having a rear extension and a movable stop adapted to lock both the trigger and the trigger-guard in position so as to prevent movement thereof when desired, such stop being capable of four positions—viz., one in which both trigger and trigger-guard are locked, one in which both are unlocked, one in which the trigger is locked and the trigger-guard is free, and one in which the trigger-guard is locked and the trigger is free, substantially as shown and described.

7. In a gun-lock, the combination, with a sliding firing-bolt, of a spring by which the same is normally pressed forward, a trigger pivoted above the firing-bolt, a catch upon the firing-bolt, and a catch upon the trigger adapted to engage with the catch upon the firing-bolt, the construction and arrangement being such that the two catches will be released from one another and the firing-bolt forced forward when the trigger is fully retracted, substantially as shown and described.

8. In a gun-lock, the combination, with a sliding firing-bolt the rear end of which is capable of vertical movement, of a trigger pivoted above the firing-bolt, a spring by which the firing-bolt is normally pressed forward, a spring by which the rear of the firing-bolt is normally pressed in a direction substantially at right angles to its sliding movement, a catch upon the firing-bolt, and a catch upon the trigger adapted to engage with the catch upon the bolt, the construction and arrangement being such that the two catches will be released from one another and the firing-bolt forced forward when the trigger is fully retracted, substantially as shown and described.

Signed at Escanaba, in the county of Delta and State of Michigan, this 25th day of February, A. D. 1892.

LARS JONSON.

Witnesses:

JOHN G. ZANE,
L. MORNSSEN.