

UNITED STATES PATENT OFFICE.

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BREAKDOWN GUN.

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To all whom it may concern:

Be it known that I, MILAN S. BARKER, of Eugene, in the county of Lane and State of Oregon, have invented a new and Improved Gun, of which the following is a full, clear, and exact description.

The invention relates to breech loading guns having the barrel hinged on the stock.

The object of the invention is to provide a new and improved gun, which is simple and durable in construction, and arranged to automatically cock the hammer on opening the barrel for removing the shell.

The invention consists of certain parts and details, and combinations of the same, as will be hereinafter described and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the improvement with the barrel open and the hammer set. Fig. 2 is a similar view of the same with the barrel closed and the hammer down. Fig. 3 is a transverse section of the same on the line 3—3 of Fig. 2. Fig. 4 is a reduced plan view of the improvement showing the lock for the barrel; and Fig. 5 is a perspective view of one of the hammers.

As illustrated in the drawings, the improvement is arranged on a double barreled gun but the improvements may be applied to single barrels if desired.

The barrel A is provided on its under side with the lug B engaging another lug which swings with the barrel A on the pivot C. The lugs D and B are located in the middle of the receiver E' forming part of the stock E and the lug D is provided with a forwardly extending pin D³ engaging a correspondingly shaped aperture B³ formed in the lug B. See Fig. 2. On the rear edge of the cam D is formed a transversely extending notch D⁴ engaged by the correspondingly shaped forward end of a rod F extending within the stock E directly under the rear part of the barrel, the rear end engaging the hammers G directly above their pivot pins G' held in the sides of the receiver E' of the stock E. The rod F works in a knuckle joint at its front end that engages the cam. The rear end of the rod

has a permanent sliding engagement with the hammers. A spring H engages each of the hammers to force the latter down to fire the cartridge in the usual manner, the spring being located, however, in the forward part of the stock instead of the rear end. On the lower end of each hammer G is formed a shoulder G² adapted to be engaged by the free end of the sear I pivoted at I' on the top of the base plate of receiver E', the rear end of the sear being formed with the downwardly-extending trigger I², which thus is an integral part of the sear. In the top of the sear, near the trigger I², is arranged a notch I³ engaged by the foot J' of a vertically disposed safety bar J provided near its upper end with a collar J² on which presses the forward end of a spring K, arranged directly under the top plate E² of the stock E.

Near the rear end of the spring K is secured a button K' under the control of the operator and serving to push the spring forward or backward, so as to change the position of the bar J, the latter swinging from the notch I³ as a fulcrum. The upper end of the bar J is adapted to rest normally on an incline E³ formed on the under side of the top plate E² at the time the button K' is in a rearmost position, as illustrated in Fig. 1. When, however, the button K' is pushed forward, as shown in Fig. 2, then the upper end of the bar J is moved from under the incline E³ to register with a notch E⁴ also formed in the under side of the top plate E² directly in front of the incline E³. As long as the bar J engages, with its upper end, the incline E³ (see Fig. 1) the operator is not enabled to press the trigger I² as the latter is then securely locked in place by the said bar J.

When the button K' is pushed forward, as shown in Fig. 2, and the upper end of the bar J is in alignment with the notch E⁴, then the operator can press the trigger I² to disengage the sear I from the shoulder G² of the hammer G to permit the latter to fall, to fire the gun by the action of the spring H. The extreme rear end K² of the spring K is curved to engage a notch in the under side of the top plate E², as long as the button K' is in a rearmost position, but when the button is pushed forward the end K² leaves the notch and rests against the under side of the top

plate E² so that the forward end of the spring exerts considerable pressure on the collar J² of the bar J. The shank of the button K' passes through an elongated slot in the top plate E² so that the button is guided in its forward and backward movement on the stock.

The spring K is formed, near its forward end, with an elongated slot K³ through which extends the bolt L connecting the stock E proper with the bottom and top plates E' and E², as plainly shown in the drawings. By this arrangement the bolt L serves as a guide for the forward end of the spring K.

On the front side of the bar J is formed a V-shaped lug J³ adapted to be engaged by a projection G³ extending from one of the hammers G, so that when the hammer is thrown backward by the rod F, on opening the barrel A, the said projection presses on the lug J³ to cause the bar J to swing rearward from the notch I³, as a fulcrum, to move the upper end of the said bar under the incline E³, so as to automatically lock the trigger I² and its sear L.

In order to lock the barrel A in place, I provide a locking lever N pivoted at N' in a recess in the top plate E² near the forward end thereof, as plainly shown in Figs. 1, 3, and 4. The lever N is pressed on near its fulcrum end by a coil spring N², (see Fig. 4) and the opposite end of the lever is adapted to engage a notched lug A' formed or secured on the barrel A, as shown in Figs. 1 and 4.

The operation is as follows:—When the barrel is closed, as shown in Fig. 2, and the operator desires to open the barrel to remove a shell and to reload the gun and set the hammers, he first unlocks the barrel A by swinging the lever N to one side to disengage the said lever from the notched lug A'. The operator then imparts a swinging motion to the barrel A to move the latter into the position shown in Fig. 1, the barrel turning on the pivot pin C. In doing so, the barrel A carries along the lug D which therefore exerts a rearward push on the rod F, so that the rear end of the same presses against the two hammers G and causes a rearward swinging of the same in the direction of the arrow a' until finally, the sears I engage the lugs G² of the said hammers, thereby locking the latter in a cocked position. At the same time, the projection G³ of one of the hammers causes a rearward swinging motion of the bar J, as previously described, to move the said bar with its upper end under the incline E³ to lock the sears I in place. Thus, as long as the barrel A is open, the hammers are securely locked in a cocked position and are held in a like position when the barrel is closed and remain in this position until the safety button K' is pressed forward to unlock the bar J over the sears I. Now, after the shells have been removed from the barrel and the cartridges have been inserted, then the operator closes the barrel A, and the lever N automatically locks the same in place. When

the operator now desires to fire the gun, he first pushes the button K' forward to bring the upper end of the safety bar J under the notch E⁴ to unlock the sears and triggers. By then pulling either of the triggers, the corresponding hammer is released, and brought down by the action of its spring H.

From the foregoing, it will be understood that the operator cannot shift the safety bar J unless the hammers are up or in a cocked position, as when the hammers are down (Fig. 2), the sears are kept depressed by the lugs G² and the upper end of the safety bar is thus held within the recess E⁴. It will be seen that by this arrangement an accidental discharge of the gun is not liable to take place, the hammer is set by the opening of the barrel, and the triggers and sears locked in place automatically, until the operator desires to fire, as above described.

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

1. A gun of the class described, comprising a sear and a hammer pivoted within the receiver, a projection on the hammer to lock the sear in position when the hammer is down, a safety bar permanently engaging the sear and capable of swinging forward and backward in the receiver, a projection on the hammer to press the safety bar back when the barrel is opened, a top plate formed with a notch and an incline arranged in longitudinal alignment, the said notch and incline being adapted to be engaged by the upper end of the safety bar, and a longitudinally movable bar connected to the upper end of the safety bar to impart a swinging movement to the said bar, substantially as described.

2. A gun of the class described, comprising a pivoted hammer and a pivoted sear engaging one another, a safety bar permanently connected to the sear so as to be capable of swinging forward and backward, a longitudinally movable bar connected to the safety bar to swing the same into an active or inactive position and a projection on the hammer to swing the safety bar back into an active position when the hammer is cocked, substantially as described.

3. A gun, comprising a pivoted hammer and a pivoted sear engaging one another, a safety bar connected to the sear so as to be capable of swinging forward and backward, and a longitudinally movable spring connected to the safety bar for depressing the same and swinging it into an active or an inactive position and simultaneously forcing the sear into engagement with the hammer, substantially as described.

4. A gun, comprising a pivoted hammer and a pivoted sear engaging one another, a safety bar connected to the sear so as to be capable of swinging forward and backward, and a longitudinally movable spring whose rear end is adapted to temporarily engage a notch in the top plate, while the front end is connected

to the said safety bar for depressing the same and swinging it into an active or an inactive position, substantially as described.

5 5. A gun of the class described, comprising two pivoted hammers arranged in transverse alignment and adjacent to each other, one of the hammers being provided with a rear extension projecting laterally into the central space between the hammers, pivoted sears
10 engaging the hammers, a safety bar permanently engaging the sears and located in the path of travel of the said extension of the hammer, and means for actuating the locking bar, substantially as described.

6. The combination with the stock and the 15 barrel having a hinge connection therewith, and provided at its rear end with a lug having a transverse notch, of a spring-pressed locking lever arranged on the top of the stock, said locking lever being pivoted to the stock 20 laterally of its axis and adapted to swing transversely to the barrel and engage the said lug thereon directly, substantially as shown and described.

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Witnesses:

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