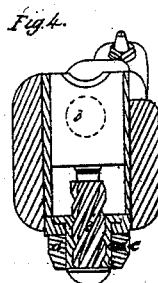
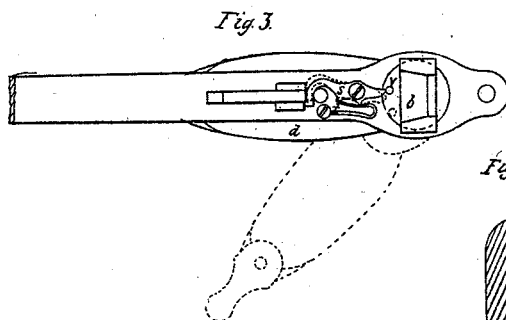
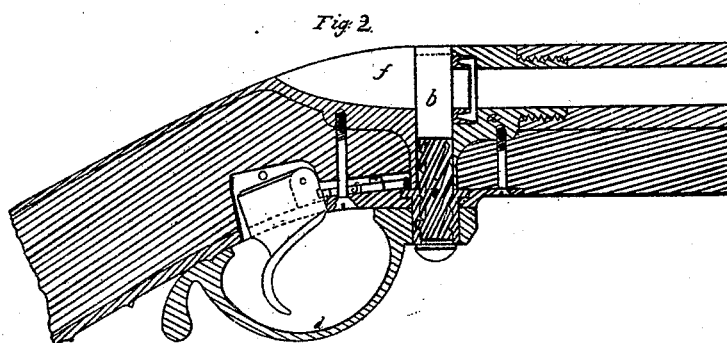
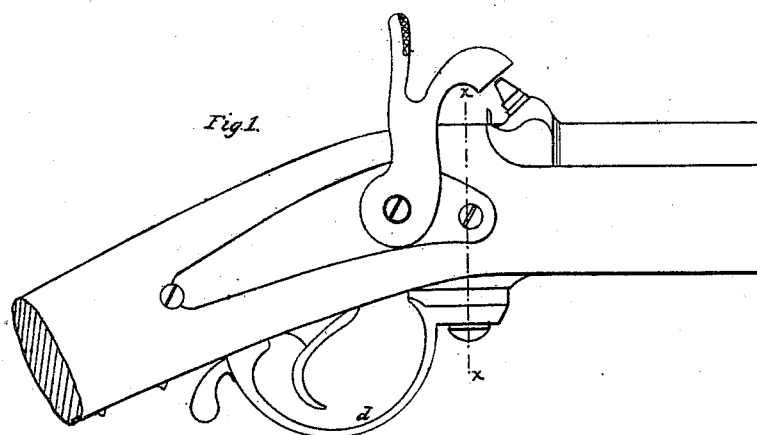


L. W. BROADWELL.  
Breech-loading Fire-arm.

No. 49,583.

Patented Aug. 22, 1865.



Witnesses:

Edward McKnight.  
W. J. Hall

Inventor

Louis Wells Broadwell  
by *[Signature]*

# UNITED STATES PATENT OFFICE.

LEWIS WELLS BROADWELL, OF NEW ORLEANS, LOUISIANA, ASSIGNOR TO  
C. M. CLAY, OF KENTUCKY.

## IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. **49,583**, dated August 22, 1865.

*To all whom it may concern:*

Be it known that I, LEWIS WELLS BROADWELL, of the city of New Orleans, State of Louisiana, have invented a new and Improved Breech-Loading Mechanism for Small-Arms; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side elevation of a gun with my invention applied thereto. Fig. 2 is a longitudinal vertical section thereof. Fig. 3 is a view of the upper side of the detached trigger and guard-plate. Fig. 4 is a transverse section in the line *x x*, Fig. 1.

The same letters refer to corresponding parts in the different figures.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I form the separate breech-piece *a*, Fig. 2, and screw it into and sometimes upon the barrel. I then cut a vertical square mortise or slot in the breech-piece, and fit therein the sliding breech-plug *b*, with three to six threaded screw *b'* cut upon the lower part thereof, and fitting into the revolving nut *c*, located in the trigger-plate, and operated by the trigger-guard *d*, which is attached thereto by means of the set-screw *e*, Fig. 4. I now form the channel *f* in the breech-piece behind the breech-plug, to facilitate the entrance of the cartridge. In the rear of the bore, and immediately in front of the sliding breech-plug, I form a circular and slightly-tapering chamber about three-sixteenths of an inch to one-fourth of an inch deep, about one-fourth of an inch larger than the bore, and concentric therewith, into which I fit a steel or other metal ring or gas-check, having a hole through it a little larger than the bore of the gun, in order that the cartridge may pass freely through it into the barrel of the gun. On the face or bearing-surface of the gas-check I make one or more small circular grooves, to serve as spaces to receive any little dirt which may accidentally get upon it or the breech-plug.

S and T, Fig. 3, is the mechanism to prevent the gun from being fired when the breech is open. When the trigger-guard is moved in the least in the direction of opening the breech (see red lines, Fig. 3) the lever *S* is relieved from the pressure of the pin *V* which is on the nut *c*, and the rear end of the lever is pressed by the spring *T* into a notch in the trigger, and fixes it so that it cannot now be pulled off. As soon, however, as the breech is closed, by bringing the trigger-guard back to its normal position the forward end of the lever *S* is pressed by the pin *V* to the left, which causes the rear end thereof to move to right out of the notch in the trigger, which may now be pulled off and the gun fired. This arrangement prevents the possibility of accident from premature discharge, because the gun cannot be fired when the breech is open or only partly open.

In order to open the breech preparatory to loading the gun, move the trigger-guard half-way round to the right, (see red lines, Fig. 3,) or until it rests under the barrel forward. It cannot go farther. This movement revolves the nut *c* and causes the sliding breech-plug *b* to sink to the bottom of the bore. The cartridge may now be introduced through the gas-check into the gun. Then by returning the trigger-guard back to its normal position the breech-plug is elevated to cover the gas-check and form a bearing thereto. The breech is now closed (see Fig. 2) and the gun is ready to be fired.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the sliding breech-block *b* and screw-shank *b'*, constructed substantially as described, with the horizontally-vibrating trigger-guard *d* and nut *c*.

2. The mechanism for preventing the premature discharge of the gun, as herein described, and illustrated by the drawings.

LEWIS WELLS BROADWELL.

Witnesses:

ELLEN A. PHELPS,  
JEREMIAH CURTIN.