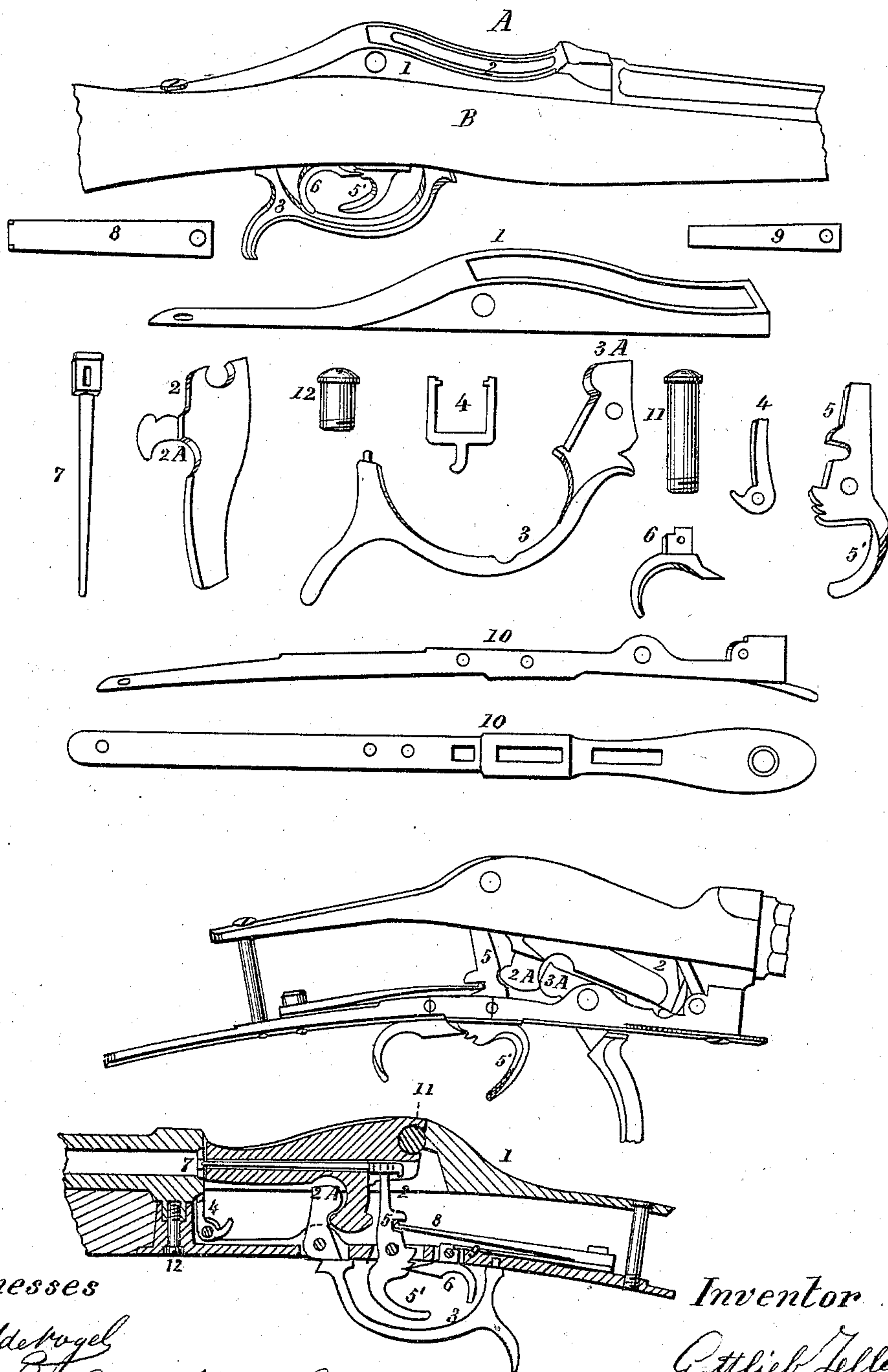


G. ZELLER.

Breech-Loading Fire-Arms.

No. 136,894.

Patented March 18, 1873.



Witnesses
J. Adenroger
Emile Dr. Morel

Inventor
Gottlieb Zeller

UNITED STATES PATENT OFFICE.

GOTTLIEB ZELLER, OF BRUSSELS, BELGIUM.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 136,894, dated March 18, 1873.

To all whom it may concern:

Be it known that I, GOTTLIEB ZELLER, of the city of Brussels, in the Kingdom of Belgium, have invented certain Improvements in Breech-Loading Fire-Arms, of which the following is a specification:

Nature and Objects of my Invention.

The nature of my invention consists in a new combination in the construction of breech-loading fire-arms by means of the different pieces or parts hereinafter described, some of which are entirely new and of my invention, and some of which are not. The object of my invention is to simplify the mechanism of breech-loading fire-arms in order to make them stronger, less expensive to manufacture, and easier to handle and use.

Description of the Accompanying Drawing.

Figure 1, B B, shows the stock of the gun made of one piece; Fig. 1^a, the box; Fig. 2, the falling block; Fig. 3, the guard; Fig. 4, the extractor; Fig. 5, the cock; Fig. 6, the trigger; Fig. 7, the striker; Fig. 8, the mainspring; Fig. 9, the small spring; Fig. 10, the lock-plate; Fig. 11, screw; Fig. 12, screw.

The box 1^a is screwed on the barrel; the drop-down block 2 is kept within this box by the screw 11 and moves up and down in it, as it is required, to open or shut the barrel to put in the cartridge. The drop-down block 2 is made with a foot, 2 A, against which presses the head of the guard 3 A. The drop-down block 2 has a horizontal hole through its middle, within which the striker 7 moves forward and backward. The guard 3 is kept within the lock-plate 10 by a screw going through the head of the guard 3 A and the lock-plate 10, and is made to push the foot of the block 2 A backward or lift up again the block 2 in order to shut the barrel. The extractor 4 is kept in the lock-plate 10 by means of a screw going through the hook of the extractor 4 and the upper side of the fore part of the lock-plate 10. This extractor is inside of the barrel and works in connection with the block 2. Whenever the block 2 falls down it touches the hook of the extractor 4, which forces out the case of the exploded cartridge. The cock 5 is fastened to the lock-plate by a small bolt; part of its top is filed out to allow the back part of the striker

7 to rest on it. The striker works in connection with the cock 5, so that when the lower part of the cock 5 is pushed forward the striker goes back and is placed in position ready to strike the cartridge. The two claws in the middle part of the cock are made to catch the fore part of the trigger 6, and to prevent the cock 5 from moving and the striker 7 from going forward except by pulling the trigger 6. The trigger 6 is fastened by a small bolt into the lock-plate 10, and catches, as already said, in the two claws of the cock 5, and is kept in that position by the small spring 9. The striker 7, as said before, is horizontally put on the top of the cock and passes through the block 2, so that when the trigger 6 is pulled the upper part of the cock 5 is compelled by the mainspring 8 to move forward and along with it the striker 7, which in that way strikes with force the cap of the cartridge and causes it to explode. The springs 8 and 9 are two flat pieces of steel; they are kept on the lock-plate both together by one screw. The mainspring 8 works the cock 5, and the small spring 9 the trigger 6. The two springs 8 and 9 could be reduced to one spring, if found suitable. The lock-plate 10 holds the several parts, as before described, and is fastened on the fore part of the box by the screw 12, while the back part of the box 1^a and the lower part of the lock-plate are kept together by a screw going through the stock of the gun.

Manner of Handling and Using the Gun.

By pushing forward the guard 3 you open it; then the head of the guard 3 A presses against the foot of the block 2 A and causes the block to fall down; then by that movement the barrel is opened to receive the cartridge; the foot of the block 2 A, being pushed backward by the head of the guard 3 A, forces also the head of the cock 5 and the striker 7 to move backward, and by that movement the striker is set in position ready to strike the cartridge. The barrel being opened, as above-said, the cartridge is put in; then, by shutting the guard 3, which is done by pulling it backward, the head of the guard 3 A lifts up the block 2 and forces it to remain in that position; and then the barrel is perfectly closed, and the gun is ready to shoot, which is done by pulling the trigger 6 backward. After shooting, by open-

ing the guard 3, as above-said, the foremost part of the block 2, falling on the hook of the extractor 4, causes the extractor 4 to push out of the barrel the empty cartridge-case, and at the same time the gun is cocked again, and the barrel opens to receive another cartridge. To uncock the gun after it is loaded, the trigger 6 is kept in position and the cock 5 allowed slowly to move. For recocking, the cock 5 has only to be pressed forward.

Advantages of this new Improvement in Breech-Loading Fire-Arms.

They consist principally, first, in the simplicity of the construction of the mechanism, which is made with fewer and stronger pieces than in the other breech-loading guns on the falling-block system; second, the cheap rate at which these arms can be manufactured, and their durability; third, the facility with which the mechanism can be taken apart whenever it requires to be cleaned and repaired, which

can be done by anybody without belonging to the trade; fourth, the facility with which the different pieces or parts can be repaired or renewed, any ordinary blacksmith being able to do it; and, fifth, the great rapidity and facility with which they can be loaded, unloaded, cocked, uncocked, and shot.

Claim.

What I claim as my invention is—

The combination of the cock 5, provided with its finger-piece 5', striker 7, and trigger 6, with the breech-block A, when the same is provided with the projection 2 A, the parts being constructed and arranged for operation as described, whereby the gun may be cocked in the act of opening the breech or independently thereof, as set forth.

GOTTLIEB ZELLER.

Witnesses:

J. A. DE VOGEL,
EMILE B. MOREL.