

A. H. EMERY.
Breech-Loading Cannon.

No. 203,020.

Patented April 30, 1878.

Fig. 1.

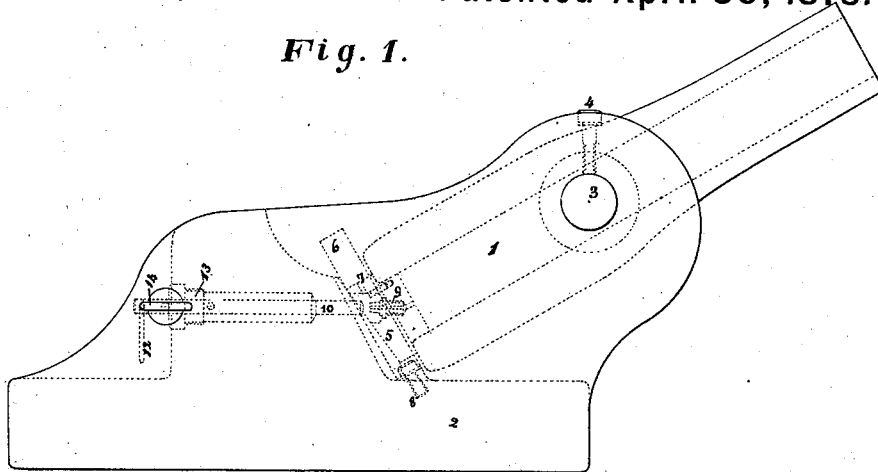


Fig. 2.

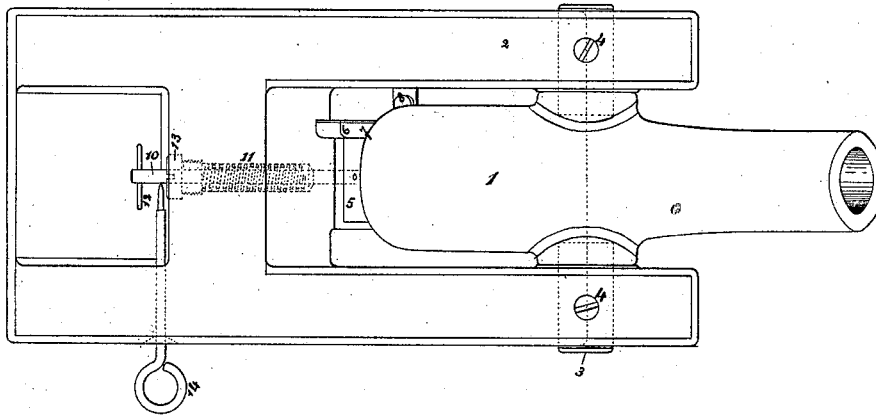


Fig. 3.

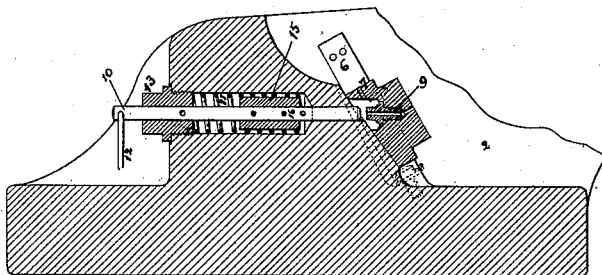


Fig. 4. Fig. 5.

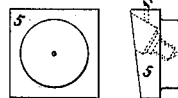
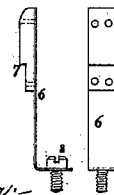


Fig. 6. Fig. 7.



Witnesses
Chas J. Gooch
E. Blond Purdett

Inventor:
A. H. Emery
By *[Signature]*
Attorney

UNITED STATES PATENT OFFICE.

ALBERT H. EMERY, OF NEW YORK, N. Y.

IMPROVEMENT IN BREECH-LOADING CANNON.

Specification forming part of Letters Patent No. **203,020**, dated April 30, 1878; application filed April 11, 1877.

To all whom it may concern:

Be it known that I, ALBERT H. EMERY, of the city, county, and State of New York, have invented certain new and useful Improvements in Breech-Loading Cannons, of which the following is a specification:

My invention relates to devices for closing the breech, locking the piece in firing position, effecting the discharge, and raising the breech-block, and tipping the body to expose the breech for loading.

In the accompanying drawings, Figure 1 is a side elevation of the gun in position for firing. Fig. 2 is a plan or top view of the same. Fig. 3 is a vertical longitudinal section of the carriage and its accessories. Fig. 4 is a front elevation of the movable breech-block. Fig. 5 is a side elevation of the same. Fig. 6 is a front view, and Fig. 7 a side view, of the spring-catch employed to hold the breech in its closed position.

The gun-body 1 consists of a barrel, with seats or sockets for inserted trunnions 3, by which it is supported in a solid block or carriage, 2. The trunnions may be fixed in the block or carriage 2 by set-screws 4, and turn freely on their ends; or the said trunnions may be fixed in the cheeks of the gun-body 1 and turn in the cheeks of the gun-carriage in the same way as common trunnions. By the use of inserted trunnions, whether the same be fixed in the gun or in the carriage, I am enabled to make the carriage in a single solid block of metal of any necessary weight, which sustains the recoil through the medium of a breech-block, 5, the construction of which is shown in Figs. 4 and 5. It is made with a cylindrical front, to fit within the breech of the gun-body, and with a wedge-shaped rear part, which, as it comes to its bearing against the back of the carriage when the breech is depressed and the nozzle elevated in readiness for firing, tightly closes the breech, and forms a solid abutment between the gun-body and carriage. The parts are locked in position by an automatic catch, 7, on a spring, 6, which is attached by a screw, 8. A nipple, 9, is fitted in the breech-block for the reception of percussion-caps. The discharge is effected by means of a firing-pin, 10, actuated by a spring, 11, and retracted by means of a ring, 12. The firing-pin passes through a screw-plug, 13, which confines the spring within its chamber. The firing-pin may be held in its

retracted position by means of a pin, 14, fitting in a transverse aperture, 16, in the block 15, by which it is attached to its spring 11. A spring-catch and notch may be substituted for the pin 14 and hole 16, if preferred. A vent, 17, is provided in the breech-block 5, for use when the nipple, 9, for percussion-caps is dispensed with.

The invention is not necessarily limited in its application to guns for any particular purpose. The block 2 may be mounted on any form of carriage for locomotion, and it may be furnished with any customary appliances for giving accurate elevation, and for training.

In the simple form here shown, the gun is well adapted for firing blank cartridges in salutes, celebrations, and the like. For loading, it is only necessary to withdraw the firing-pin 10 and lock it back by means of the pin 14, or a spring-catch used in lieu thereof, to withdraw the spring-catch 6 7 and elevate the breech. The breech-block 5 is then taken out, the cartridge inserted, the breech-block replaced, and the breech thrown down. It is automatically locked in this position by the spring-catch 6 7, in readiness for firing at any instant by drawing the pin 14.

The sliding breech-block, constructed, as it is, to enter the breech-chamber, and to wedge between the rear end of the cannon-body and the back of the carriage, constitutes a sufficiently safe and effective lock where the gun is used for toy purposes. The spring-catch is beneficial in affording additional and perfect security for other purposes.

Having thus described my invention, the following is what I claim as new and desire to secure by Letters Patent:

1. The combination of the gun-body 1, carriage 2, breech-block 5, and spring 6, substantially as and for the purposes set forth.

2. The combination, with the gun-body 1 and carriage 2, of the sliding breech-block 5, carrying the nipple 9, said block being constructed and applied, as herein set forth, to fasten the barrel in firing position, and to receive the impact of the firing-pin 10.

3. The combination of the firing-pin 10, guide-plug 13, and collar 15, for the purposes set forth.

ALBERT H. EMERY.

Witnesses:

OCTAVIUS KNIGHT,
JONATHAN EDWARDS.