

WILLIAM FIELDS.

Improvement in Battery-Guns.

No. 113,996.

Patented April 25, 1871.

Fig. 1.

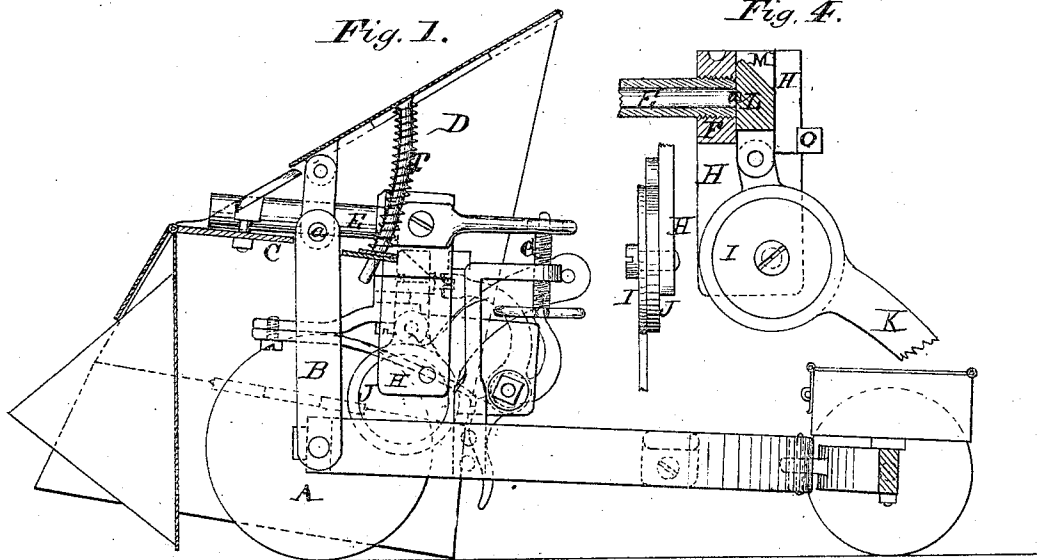


Fig. 4.

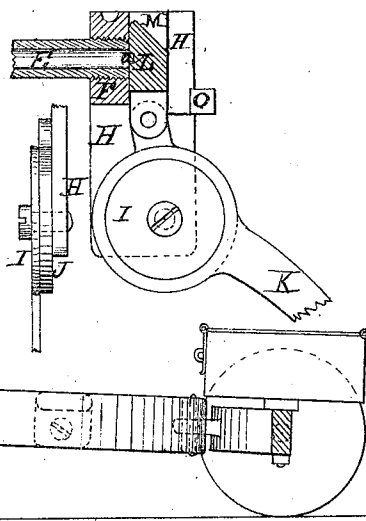


Fig. 2.

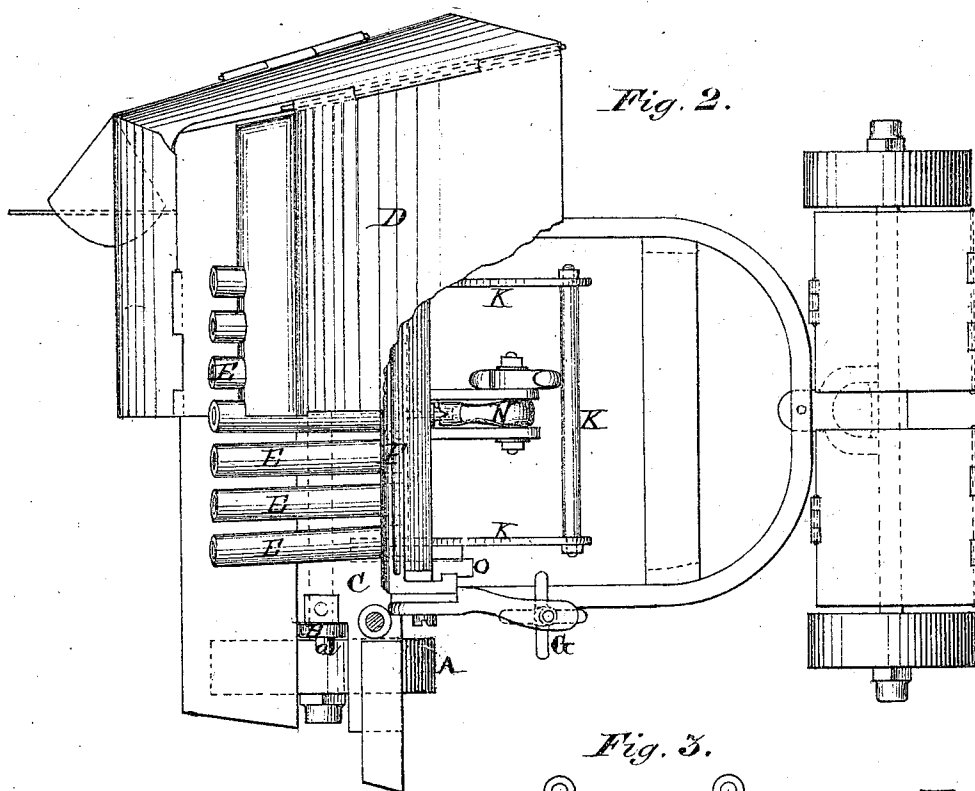
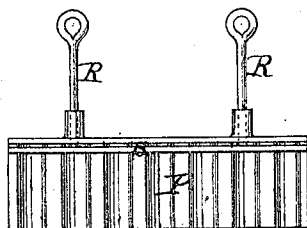


Fig. 3.



Witnesses:
Robert E. Lee
John Johnson

Inventor:
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UNITED STATES PATENT OFFICE.

WILLIAM FIELDS, OF WILMINGTON, DELAWARE.

IMPROVEMENT IN BATTERY-GUNS.

Specification forming part of Letters Patent No. **113,996**, dated April 25, 1871.

To all whom it may concern:

Be it known that I, WILLIAM FIELDS, of Wilmington, Delaware, have invented certain new and useful Improvements in Field-Battery Guns, of which the following is a specification.

The nature of my invention consists in surrounding or covering the guns with a hinged spring-armor, so as to protect the operators, the devices by which the breech-piece is lowered and raised, and in the general construction and arrangement of parts, which will hereinafter be more fully set forth.

Figure 1 is a side elevation of my gun, part of the armor being removed. Fig. 2 is a plan view of the same. Fig. 3 is a similar view of my feeding device. Fig. 4 is a part section view, showing more especially the cams by which the breech-piece is raised and lowered.

A represents the wheels, upon which the frame rests. Extending upward from each end of the axle is a standard, B, to which the bed-plate C and armor D are pivoted. This bed-plate C consists of a broad metal plate, and is provided with a trunnion, *a*, upon each side, bearing in the standards B, so as to allow the barrels E to be raised or depressed by means of the screw G. Resting on the top of this plate or frame, and having their rear ends screwed into a solid head-piece, F, as seen in Fig. 4, are the barrels E. These barrels may be of any desired size, and may vary in number from ten up to fifty, just as may be desired, and are so placed in regard to each other that their ends slightly diverge, so that in firing fifteen at a range of one thousand yards the balls will sweep a space of thirty feet. In an ordinary-sized battery I propose to use fifteen barrels.

In using a solid head-piece and screwing the barrels therein I obtain a great advantage, for should one of them be injured in any manner it can at once be removed and a new one inserted. Cut in the rear side of this head-piece is a groove, *a*, extending from one barrel to another, so that the explosion of a single cap will discharge all the guns at once. Extending downward from each end of the head-piece is a hanger, H, to which are pivoted two eccentrics, I J, in such a manner that when the inner ones, I, are raised or depressed by their connecting-lever K the outer ones, J, are raised or depressed in an opposite direction.

To the eccentrics J, as seen in Fig. 4, is pivoted the solid breech-piece L, which has tapering ends, and which slides up and down in the groove or guide M, so as to allow the barrels E to be loaded from the rear. This breech-piece fits tightly against the head-piece F when in position, as seen in Fig. 4, and is provided with one or more nipples, upon which the caps are exploded by the hammer N.

P represents my device for feeding or loading all the barrels at once. This consists of a plate having a corresponding groove for each barrel, in which the cartridges are placed.

When it is desired to load the battery the lever K is drawn upward, and it acting on the two eccentrics I J draws the breech-piece downward, leaving the rear ends of the guns open, ready to receive the cartridges. The feeder P, having a cartridge in each groove, is then presented, resting upon the supports O, bringing the cartridges just opposite their respective holes, so that by a single push upon the plungers or rods R the plate S drives them all home at once.

Thrown over and completely surrounding the battery upon every side except the rear is the armor D. This armor consists of a number of steel plates, hinged together in such a manner that they can be let down so as to form a most perfect protection to the operators, or can be folded up so that the battery can be moved from one place to another without impediment. In order to make these plates proof against cannon-balls and other large missiles, I provide them with a number of springs, T, so that when struck, instead of presenting a solid resistance to the ball, they spring from six to eight inches, giving the ball an opportunity to rebound or glance off without breaking or penetrating the plates. The springs may be of any suitable kind and placed in any desired position.

U represents the attachment in which the ammunition is carried, and which may be of any desired construction.

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

1. The hinged armor D, in combination with the springs T, substantially as shown and described.

2. In combination with the breech-piece L, the two eccentrics I J, and lever K, when arranged to operate as described.

3. The feeding device consisting of the grooved plate P, plungers R, and plate or piston S, when combined as set forth.

4. The barrels E, head-piece F, screw G, hinged spring-armor plates D, breech-piece L, eccentrics I J, lever K, and hammer N, when

all are combined to form a field-battery gun, substantially as shown and described.

In testimony that I claim the foregoing as my own I hereby affix my signature.

WILLIAM FIELDS.

Witnesses:

A. B. CRAWFORD,
JNO. HENRY TUHL.