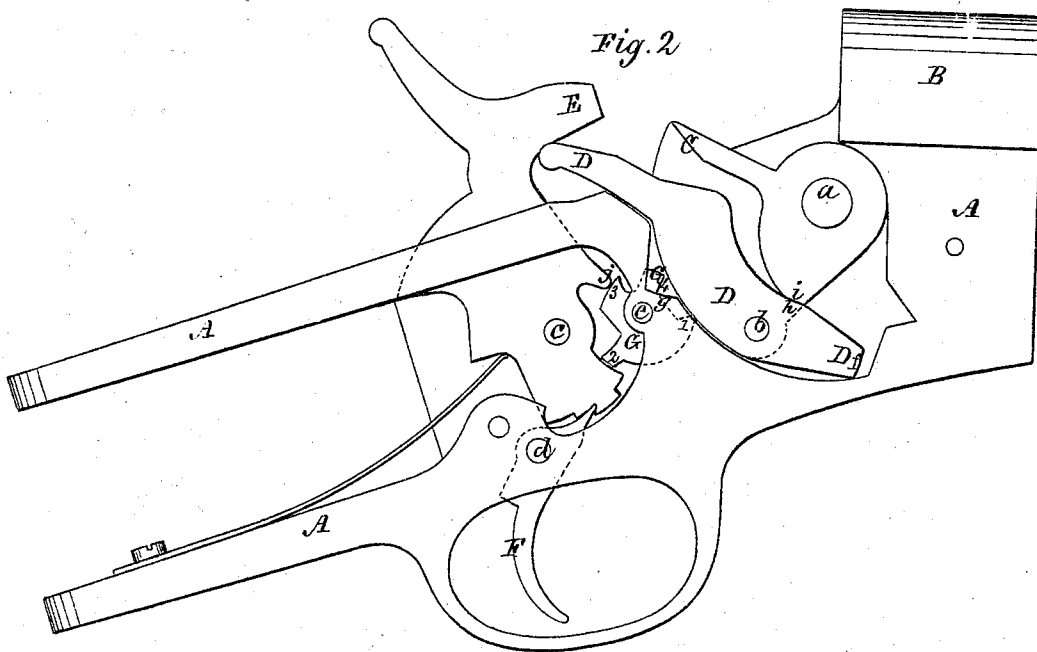
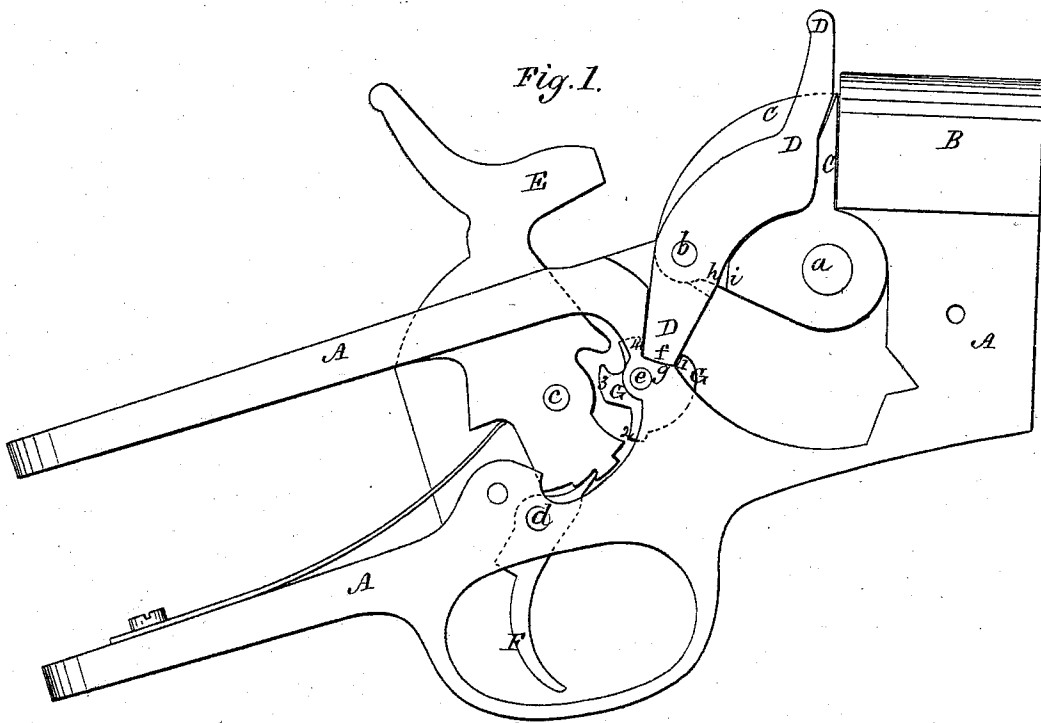


2 Sheets--Sheet 1.

JOHN F. THOMAS.
Improvement in Breech-Loading Fire-Arms.
No. 125,229.
Patented April 2, 1872.



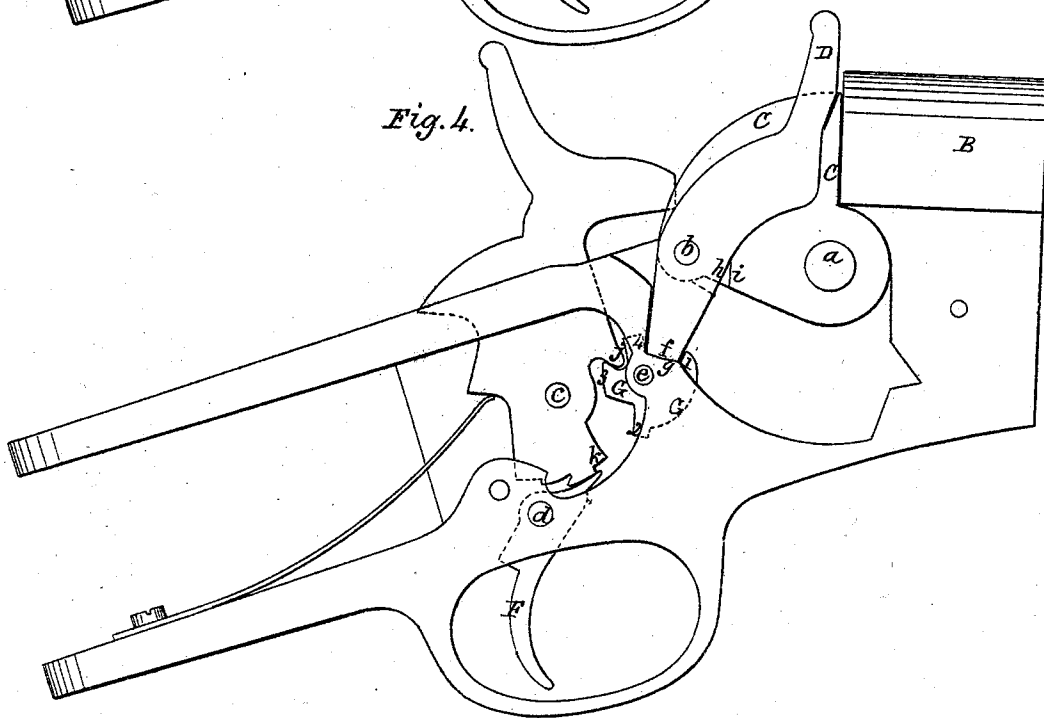
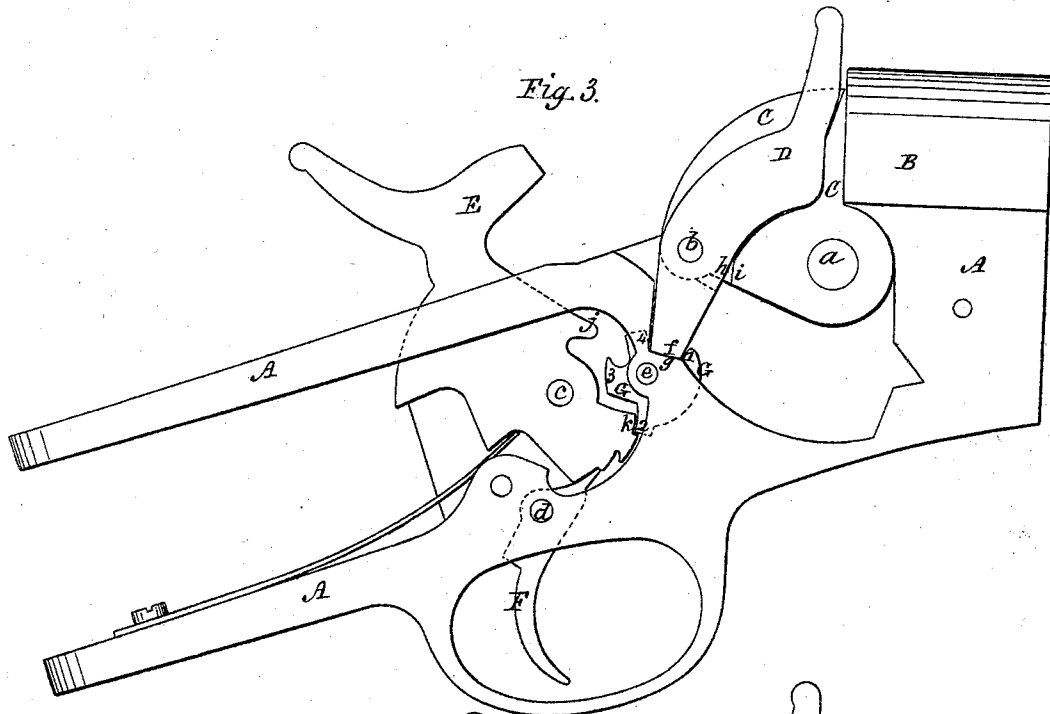
Witnesses
 Amy Anderson
 Edmund Masson

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2. Sheets--Sheet 2.

Patented April 2, 1872.



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UNITED STATES PATENT OFFICE.

JOHN F. THOMAS, OF ILION, NEW YORK.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 125,229, dated April 2, 1872.

To all whom it may concern:

Be it known that I, JOHN F. THOMAS, of Ilion, in the county of Herkimer and State of New York, have invented certain new and useful Improvements in Breech-Loading Fire-Arms; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 represents the arm with the hammer at the "half-cock," and the breech free to be swung open by means of its pivoted lever. Fig. 2 represents the arm with the hammer still at the half-cock, but with the breech swung open and ready to receive the cartridge. Fig. 3 represents the arm as it appears when the hammer is at the full-cock and the breech closed and locked, and ready for firing. Fig. 4 represents the arm as it appears when it has been discharged.

Similar letters of reference, where they occur in the several separate drawings, denote like parts of the arm in all of the figures.

My invention consists in the interposition between the breech-block, or a lever pivoted thereto, and the hammer, of a spur-wheel, which locks the hammer when it is at the half-cock, and locks the breech-block when the hammer is at the full-cock, as well as when the hammer is down after the act of firing.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawing.

A represents the frame of the arm, and B the barrel thereof. The breech-block C is pivoted to the frame at *a*, and to this breech-block is pivoted, as at *b*, an operating and locking lever, D. The hammer E is pivoted to the frame at *c*, and the trigger F is pivoted to the frame at *d*. Between the hammer and the breech-block there is pivoted, as at *e*, a turning and locking spur, G, which is operated by the locking-lever D as follows: When the hammer is at the half-cock, as in Fig. 1, the lever D is free to be moved on its center of motion *b*, which carries its rear end *f* from its seat *g* on the main frame and brings its portion *h* against a shoulder, *i*, on the breech-block C,

so that, by continuing to draw upon the lever D, the breech-block is swung back and the bore or chamber of the arm opened and ready to be charged. When the locking or bracing lever D is first moved from its seat it comes against the shoulder or spur 1 of the spur-wheel G, and turns said wheel into the position shown in Fig. 2, with its spur 2 close to the tail or under part of the hammer, and its spur 3 under and close to a projection, *j*, on the hammer. Thus, when the breech-block is swung back to open the bore so as to charge the arm, the hammer is locked at the half-cock, and pulling the trigger or drawing the sear from the half-cock notch would not release the hammer or allow it to fall, as the spurs 2 3 would prevent it from flying.

When the cartridge is inserted in the bore of the arm and the locking or bracing lever D is operated to close the breech-block, said lever comes against the shoulder or spur 4 of the spur-wheel G and turns it into the position shown in Fig. 3, carries its spurs 2 3 out of locking position, and the hammer can then be brought to the full-cock notch, as seen in said Fig. 3. The spur-wheel in this position, though releasing the hammer, locks the lever D by the shoulder or spur 2 coming against the shoulder *k* on the tail of the hammer, and the point *f* of the lever being in the recess between the shoulders or spurs 1 and 4, it cannot, nor can the spur-wheel, move when the hammer is on the full-cock.

When, however, the hammer has fallen and struck the firing-pin, and through it fired the cartridge or charge, the shoulder *k* on the tail of the hammer has left the shoulder or spur 2 of the spur-wheel; but the projection *j* on the upper portion of the hammer has dropped into or against the shoulder or spur 3 of the spur-wheel, and the latter cannot move, nor can the lever or locking-brace D be moved.

When the hammer is raised to the half-cock, then the lever and breech-block can be operated as above described.

When the lower end *f* of the brace or lever D is in the recess formed in the spur-wheel D by its two shoulders or spurs, 1 4, it also bears or rests against the portion *g* of the main frame

in which the pivot-pin *e* of said wheel is supported.

Having thus fully described my invention, what I claim therein is—

The combination of the swinging breech-block C and lever D pivoted thereto, the hammer E, and the spur-wheel G interposed between said breech-block and hammer, and op-

erating, in connection therewith, to lock and unlock both the hammer and breech-block in certain positions, substantially as described.

JOHN F. THOMAS.

Witnesses:

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H. H. BENEDICT.