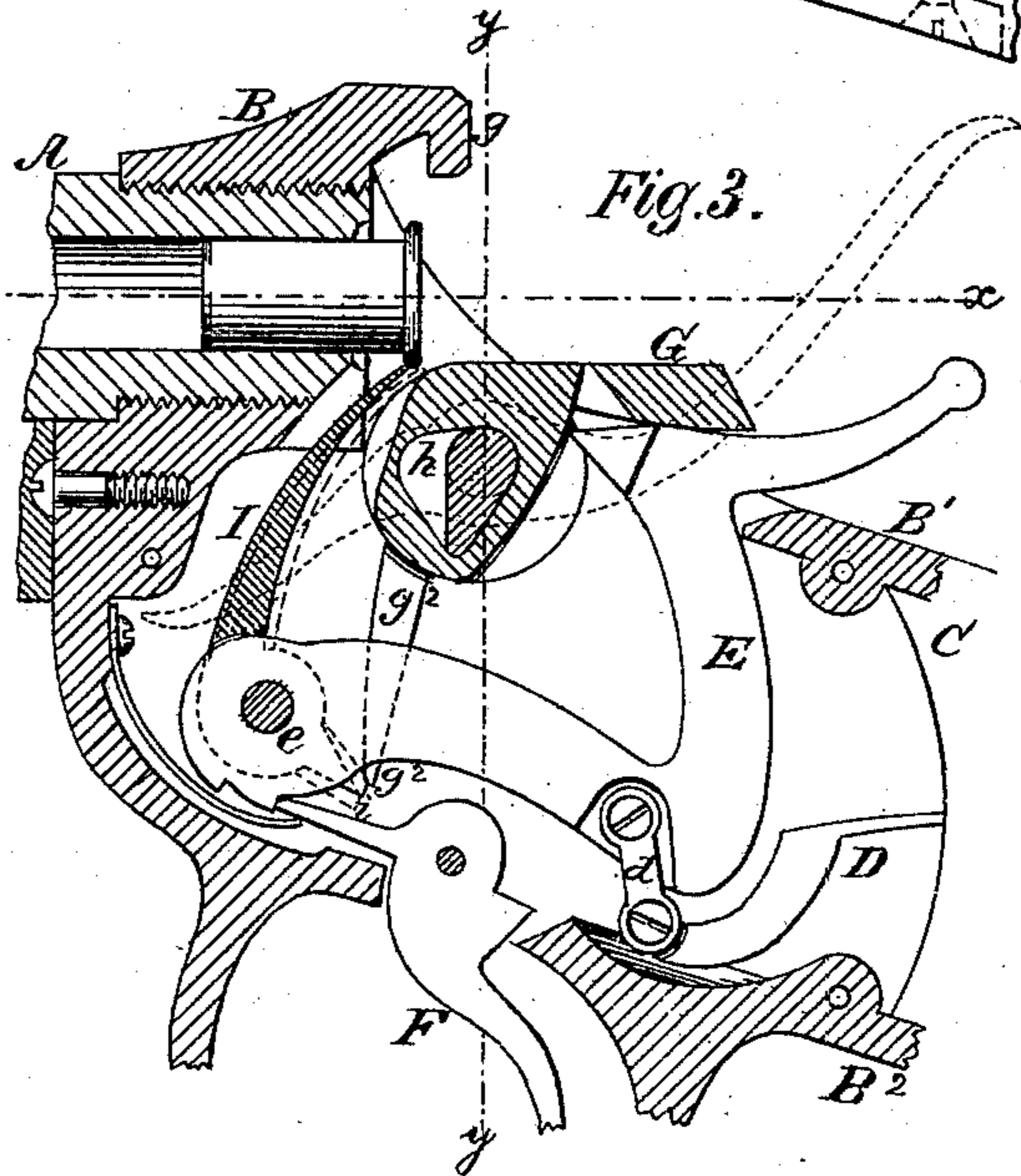
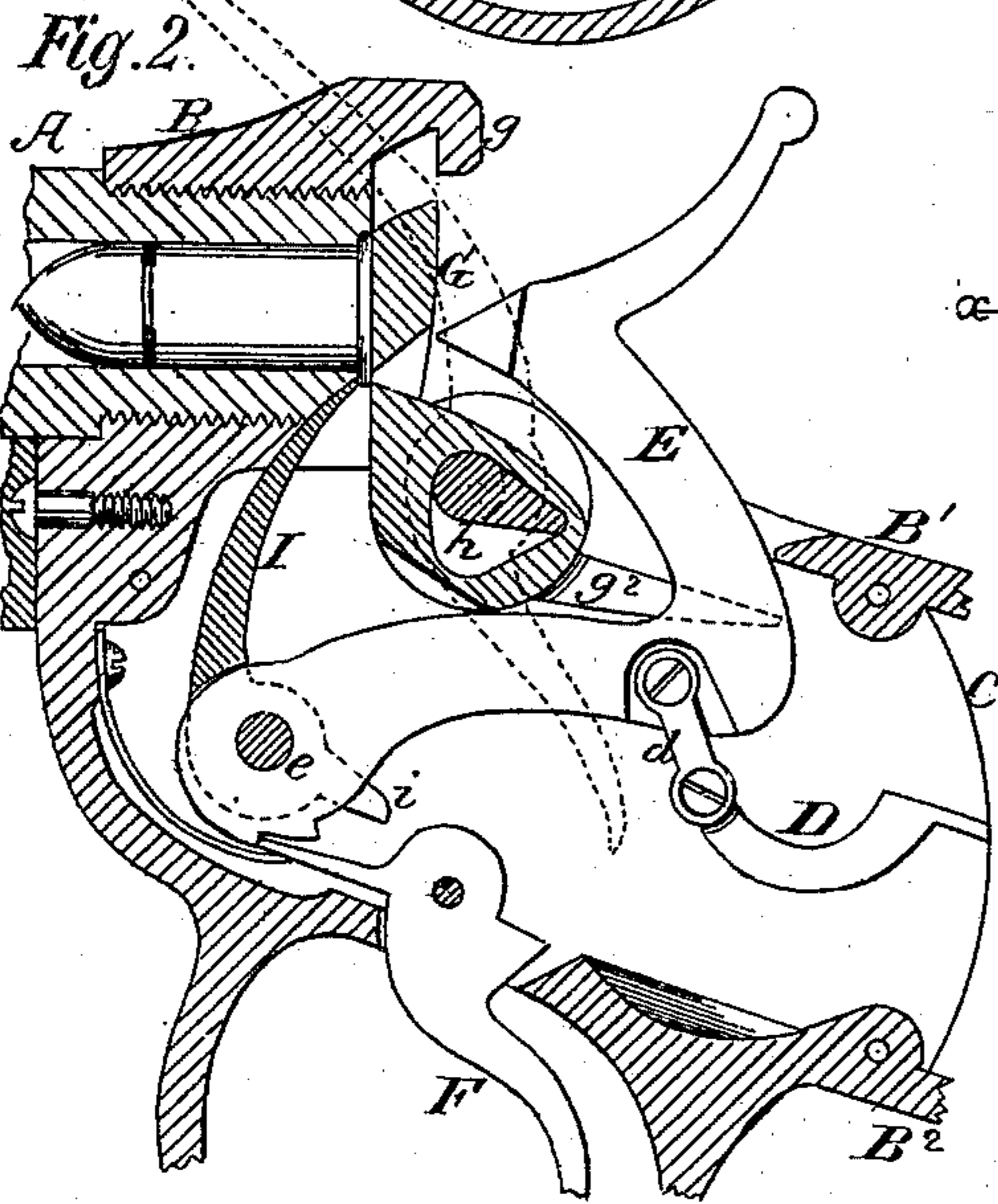
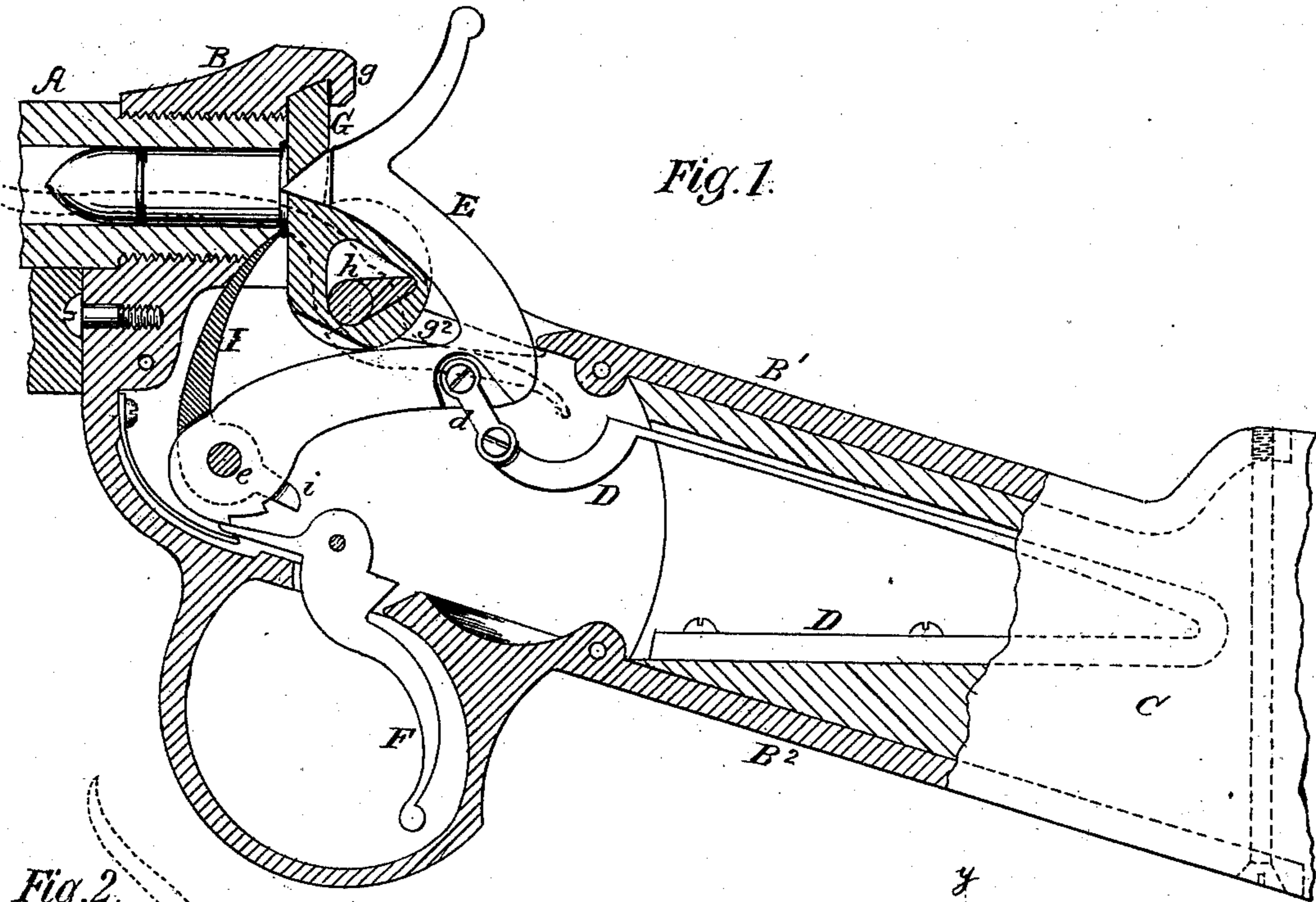


W. MONT STORM.

Improvement in Breech-Loading Fire-Arms.

No. 132,740.

Patented Nov. 5, 1872.



Witnesses:

Edwin Thompson
Robt. Wain

inventor:

Wm. Mont Storm

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Fig. 4.

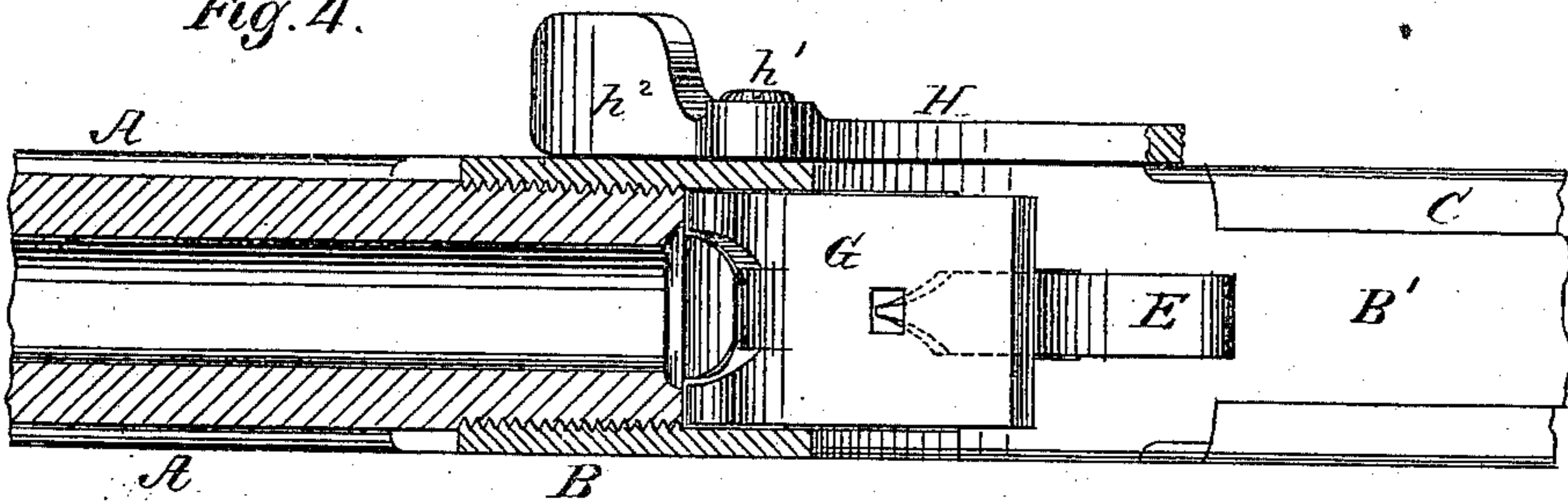


Fig. 5.

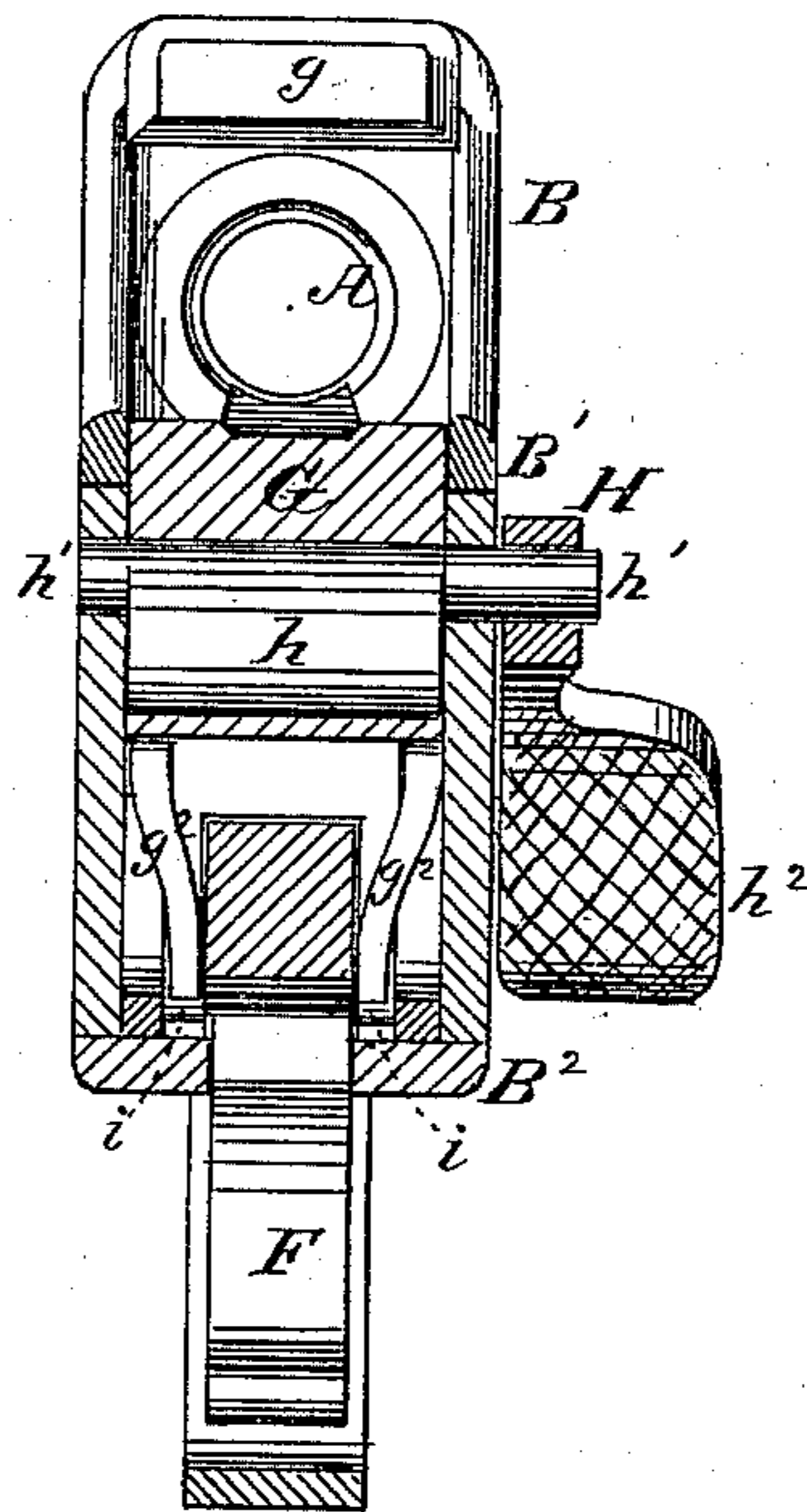
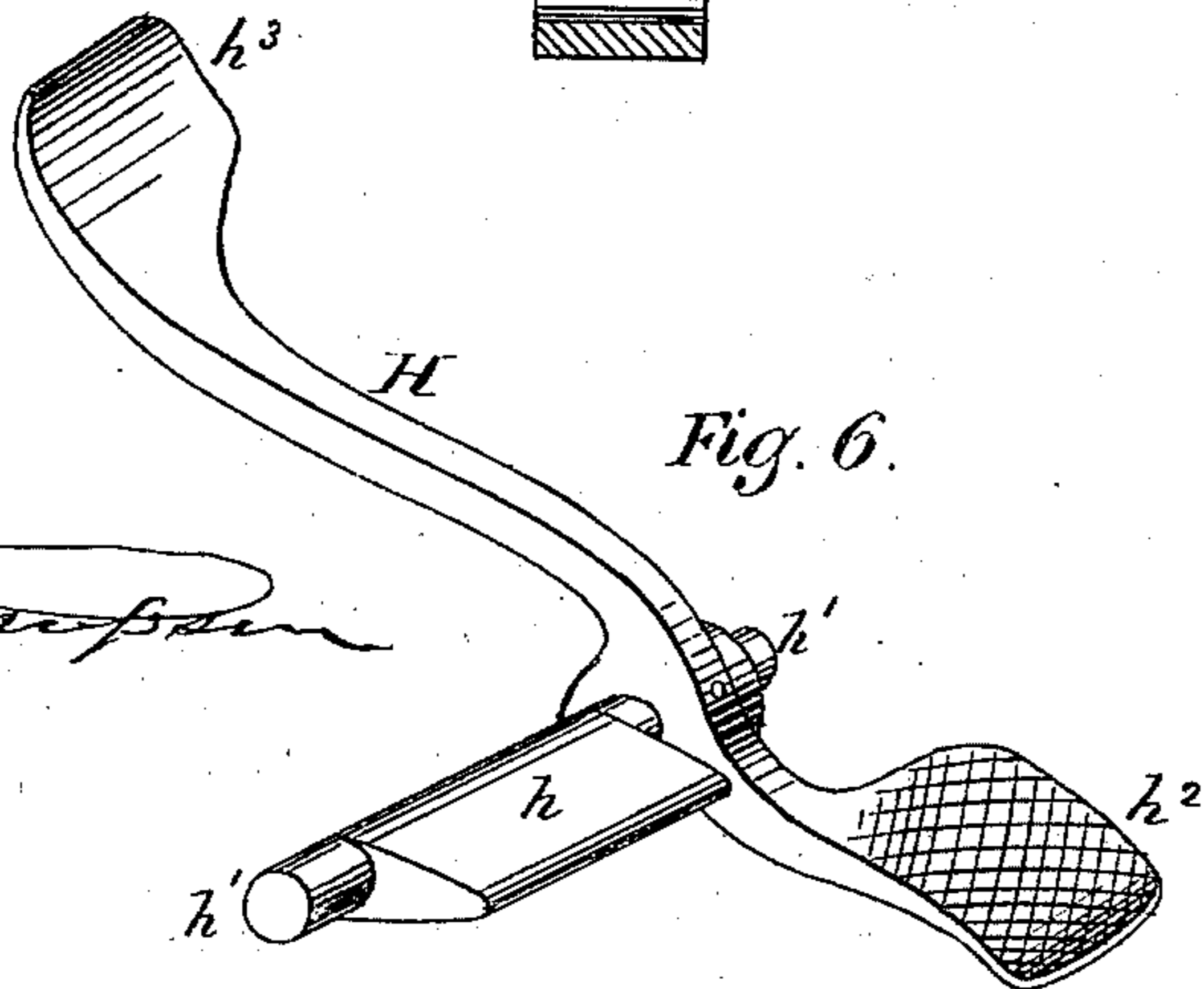


Fig. 6.



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UNITED STATES PATENT OFFICE.

WILLIAM MONT STORM, OF NEW YORK, N. Y.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 132,740, dated November 5, 1872.

To all whom it may concern:

Be it known that I, WILLIAM MONT STORM, of the city, county, and State of New York, have invented certain new and useful Improvements in Breech-Loading Fire-Arms, of which the following is a specification:

My invention relates to breech-loaders of the class having pivoted or swinging breeches.

1. The object of the first part of my invention is to impart an upward vertical movement to the breech piece or gate when closed against the end of the barrel, thus causing the gate to pass behind an abutment, which sustains the gate against the recoil of the explosion, and a reverse movement after the explosion to release the gate; and this I accomplish by combining a suitably-shaped cam with the breech-gate, as hereinafter specified.

2. The object of the next part of my invention is so to combine the breech-gate having the movements above mentioned that the hammer may be cocked by the act of opening the breech; but the charge cannot be exploded while the breech is open or even unlocked.

3. The object of the next part of my invention is to hold the breech securely against the force of the explosion to prevent the breech being blown open; and this I do by combining the breech, a gate, and its operating-cam, having the movements above described, with an abutment or locking-jaw on the breeching, into which the barrel is screwed, as hereinafter specified.

4. The object of the next part of my invention is to eject the exploded shell, which I do by combining the breech piece or gate, operating as above described, with an ejector pivoted within the stock and actuated by the breech-block itself, as hereinafter-specified.

5. The object of the next part of my invention is to enable the operator more readily to manipulate the gun; and this I do by constructing the operating or breech-opening lever of the gun with an extension in front as well as in rear of its axis, as hereinafter set forth.

The accompanying drawing shows all the improvements herein claimed as embodied in a single arm; obviously, however, some of them may be used separately from the others and in arms differing in construction from that herein shown.

Figure 1 represents a vertical longitudinal

central section through so much of my improved gun as is necessary to illustrate the invention claimed, with the parts in the relation they assume at the moment of firing. Fig. 2 represents a similar section, with the hammer at half-cock and the breech-piece partially drawn down. Fig. 3 represents a similar section with the breech fully open. The position of the working lever is shown in dotted lines in the preceding figures. Fig. 4 represents a horizontal longitudinal section through the barrel with the breech open. Fig. 5 represents a vertical transverse section through the gun, showing the cam; and Fig. 6, a view in perspective of the working lever and cam.

My gun, in this instance, is shown as adapted to the use of a primed central-fire metallic cartridge.

An open-ended barrel, A, is screwed into a breeching, B, open behind in like manner. A back-strap, B¹, connects this breeching securely with the upper side of a stock, C, while a similar lock-strap, B², connects the under side of the stock and breeching. This strap also carries the few parts constituting the lock. A mainspring, D, secured in a cavity in the stock, is connected by a link, d, with a hammer, E, vibrating centrally in the stock on a pivot, e, and having a pointed nose to penetrate through an opening in the breech-block or gate to ignite the charge. The hammer, when full-cocked, sinks into a recess in the stock, so as to lie below the plane of the bore, so as to offer no impediment to the removal or insertion of the cartridge. The trigger F needs no description. The gate or breech-piece G is of peculiar construction, as shown in the drawing, and has both a vertical and an oscillating movement imparted to it by means of a cam, h, working in a yoke in the gate. The upper part of the gate is flat and adapted to close the breech, as seen in Fig. 1, where it rests with its upper end in a groove formed by a strong jaw, hook, or abutment, g, on the breeching. The lower part of the gate is curved, as shown, so that when the breech is closed the jaws of this gate may abut against the shoulders of the back-strap B¹, and thus sustain the gate against the strain of the explosion. The cam h rocks on a pivot, h', and is actuated by a lever, H, mounted on its projecting end outside of the lock-plate. This lever, it will be observed, beside the usual

thumb-piece h^2 , has a projection, h^3 , in front of its pivot, which front projection moves upward and backward in opening the breech. The gate, when opened, lies below the bottom of the bore of the barrel, as also does the hammer when full-cocked, both of which are thus well out of the way when inserting or removing the cartridge. The hammer can be cocked without moving the breech-piece, but, if preferred, it may be cocked by the opening of the breech-piece. The charge cannot be fired unless the breech is closed, as when open the hammer abuts against the bottom or rounded part of the breech-piece before striking the upper part. (See Fig. 2.) In opening, the breech-piece descends vertically far enough to clear the jaw g , as in Fig. 2, and then swings outward and downward into the position shown in Fig. 3. As it assumes this position prongs g^2 on it abut against the toes i of an ejector, I , pivoted on the same axis as the hammer, and cause the ejector to vibrate, thus expelling the cartridge-shell. The ejector, it will be seen, requires no spring, being opened by the breech-piece and closed by it, or by the insertion of the cartridge. It works entirely within the lock-plate, where it is protected from harm and does not mar the symmetry of the gun.

I claim as my invention—

1. The combination of the oscillating vertically-moving breech-gate and the cam which

imparts these movements to it, these parts being constructed and operating in combination, substantially as set forth.

2. The combination of the oscillating vertically-moving breech-gate and the hammer, these members being constructed and operating in combination, substantially as set forth, so that the hammer may be cocked by the opening of the breech-gate, and to prevent accidental explosion.

3. The combination of the locking-jaw on the breeching with the oscillating vertically-moving breech-gate and its cam, these parts being constructed and operating substantially as set forth, whereby the breech-gate is operated and held against the explosive force of the charge.

4. The combination of the oscillating vertically-moving breech-gate, the cam, and the oscillating ejector, actuated by the breech-gate, these parts being constructed and operating substantially as set forth.

5. The combination, with a breech-gate, of a cam, and an operating-lever swinging vertically parallel with the barrel and projecting on both sides of its axis, substantially as set forth.

WM. MONT STORM.

Witnesses:

EDWIN THOMPSON,
ROBT. MUIR.