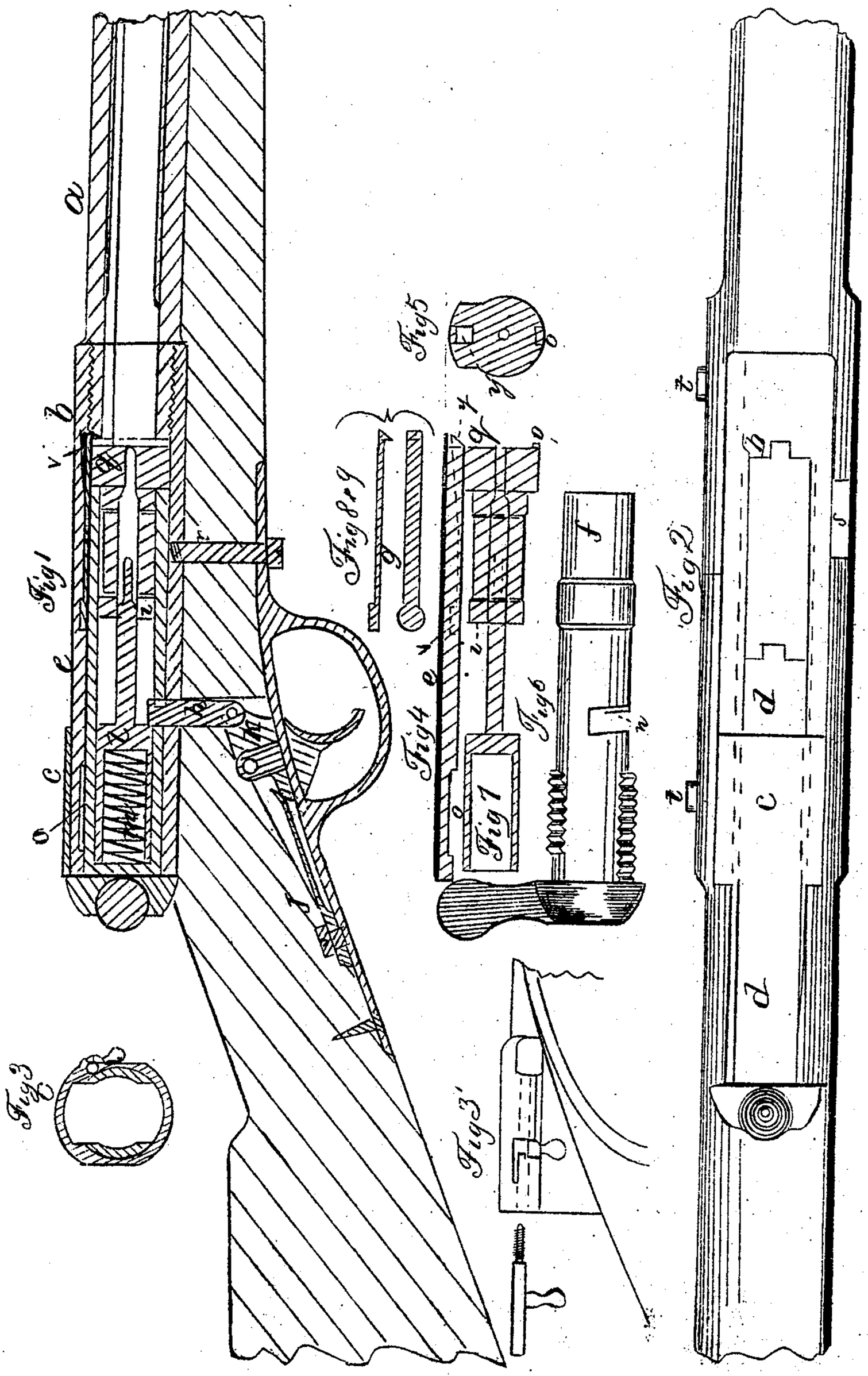
B. Burton.
Breech Loader.

No 81,059. Patented Aug 11 1868



Witnesses
Edwin H. Covey
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United States Patent Office.

BETHEL BURTON, OF BROOKLYN, NEW YORK.

Letters Patent No. 81,059, *dated August* 11, 1868.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, BETHEL BURTON, of the city of Brooklyn, in the county of Kings, and State of New York, have invented a new and useful Improvement in Breech-Loading Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, being an improvement upon that for which Letters Patent were granted to me, December 20, 1859, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a vertical section of my improved fire-arm at the breech.

Figure 2 is a plan of the same, with the breech-pin drawn back.

Figure 3 is a cross-section of the rear end of breech.

Figure 3¹ is a side elevation of the same, showing the bolt which locks the breech-pin, with the bolt detached, upon which is shown the spiral spring, which keeps it in place.

Figure 4 is a section of a sliding cover, recoil-block, and steady-pin.

Figure 5 is a cross-section of the same.

Figure 6 is the breech-pin.

Figure 7 is a section of the hammer.

Figures 8 and 9 are a section and plan of a spring or cartridge-extractor.

I extend the barrel *a* by screwing thereon a breech or cylinder, *b*. I form a longitudinal slot or mortise into the cylinder, on the upper side, from the point *b* to and running under the ring *c*, formed on the upper side of cylinder, as shown at cross-section, fig. 3, *c*, to allow the slide *e* to move back and forward with the breech-pin *f*, without weakening the breech. Upon the forward end of the slide *e* there is a recoil-block, *q*, and a steady-pin, *i*, running from said block, which enters the breech-pin *f*, when, by a partial rotation of the same, one portion or section of the screw enters into a recess in the under side of the slide *e*, at *o*, and serves to connect them together, by which means the slide *e* and recoil-block *q* are carried back, with the breech-pin *f*, when withdrawn. On the under side of the slide *e*, a slot is cut, as shown at *y*, in figs. 1, 4, and 5, in which the extractor *g*, figs. 8 and 9, works.

The slide or cover *e* is made to extend entirely over the extractor, to protect it from wet or dirt, and is kept in place by the breech-pin *f*, when, by a forward and turning motion of the breech-pin *f*, the sectional screws on said breech-pin enters a corresponding sectional screw in the rear of the chamber, substantially as set forth in my former patent, and forces the recoil-block *q*, figs. 1 and 4, against the base or head of the cartridge, which sustains the recoil.

The breech-pin *f* is bored out to within one-eighth of an inch of its base, in which the hammer and spiral spring *m* are made to fit, and upon the trigger *k* a finger, *h*, is pivoted, which passes up through the breech and breech-pin, so that, when the breech-pin is withdrawn, the spring J upon the trigger-guard, pressing on a ledge of the trigger *k*, keeps the finger *h* pressed up in front of the hammer *l*, holding the hammer back, while the breech-pin is pressed forward to close the breech, and, in so doing, the spring *m* in the hammer *l* is compressed and ready for firing. The breech-pin *f* is prevented from turning, until the sectional screws are in position to be united, by means of the finger *h* working in an L-shaped slot in the breech-pin *f*.

To prevent a premature discharge of the piece, before the breech-pin *f* is entirely screwed up, a slot is made, which forms a hook on the upper front end of the finger *h*, as shown at *h*, fig. 1, which hook passes over the lip *n* on the rear of the slot in the breech-pin *f*, fig. 6, so that the finger *h* cannot be pulled down until the breech-pin *f* has been revolved or turned sufficiently to bring the lip *n* from under the hook on the trigger, where an opening is cut, which allows of the finger being drawn down by the action of the trigger. When the spiral spring is relieved, it forces the hammer forward against the head of the cartridge, by which means the fulminate in the cartridge is ignited.

In order to carry the arm with safety, when loaded, it is only necessary to turn the breech-pin until the lip *n* is brought under the hook on the finger *h*, when it is secured, so that the arm cannot be discharged.

To hold the breech in this position, I employ a bolt on the breech, as shown at figs. 3 and 3^1, running into a hole in the lever, to prevent the breech-pin *f* from turning. In order to withdraw the breech-pin and sliding cover entirely out, the hook on the finger *h* must be drawn down below the breech-pin *f*, which allows of their free passage in and out of the chamber of the breech in which they work.

In order to expel the shell of the cartridge from the chamber of the breech, when withdrawn from the barrel, a projection, *v*, on the under side of the recoil-block, figs. 4 and 5, supports the rim of the cartridge, and prevents its dropping down from the hook of the extractor, until it clears the end of the barrel, when the pressure exerted by the spring *m* on the pin *p* against the cartridge, tilts it up and out of the chamber of the breech.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The construction of the breech or cylinder, with the opening for the slide *e* to pass under the ring *c*, by which means the opening is entirely closed from access of sand or dirt, when the breech is closed.

2. The recoil-block *q*, steady-pin *i*, and slide *e*, combined with the breech-pin *f* and sectional screws or cam, which enters the recess at *o*, for combining or coupling the same without the use of a screw or other fastening.

3. The manner of combining the extractor *q* with the slide *e* by means of the slot or recess *y*, dispensing with screws or other fastenings.

4. The combination and arrangement of the spring-hammer *l* with the sliding breech, so that by one and the same motion the said breech is opened to receive a cartridge and the empty cartridge-shell ejected from the chamber by the pressure of the hammer, substantially as set forth.

5. The hook-ended finger *h* upon the trigger *k*, the slot and lip in breech-pin *f*, the safety-bolt, fig. 3^1, for keeping the breech-pin locked, and as set forth.

BETHEL BURTON.

Witnesses:
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