

L. T. FAIRBANKS.

Breech Loader.

No. 91,616.

Patented June 22, 1869.

Fig. 1

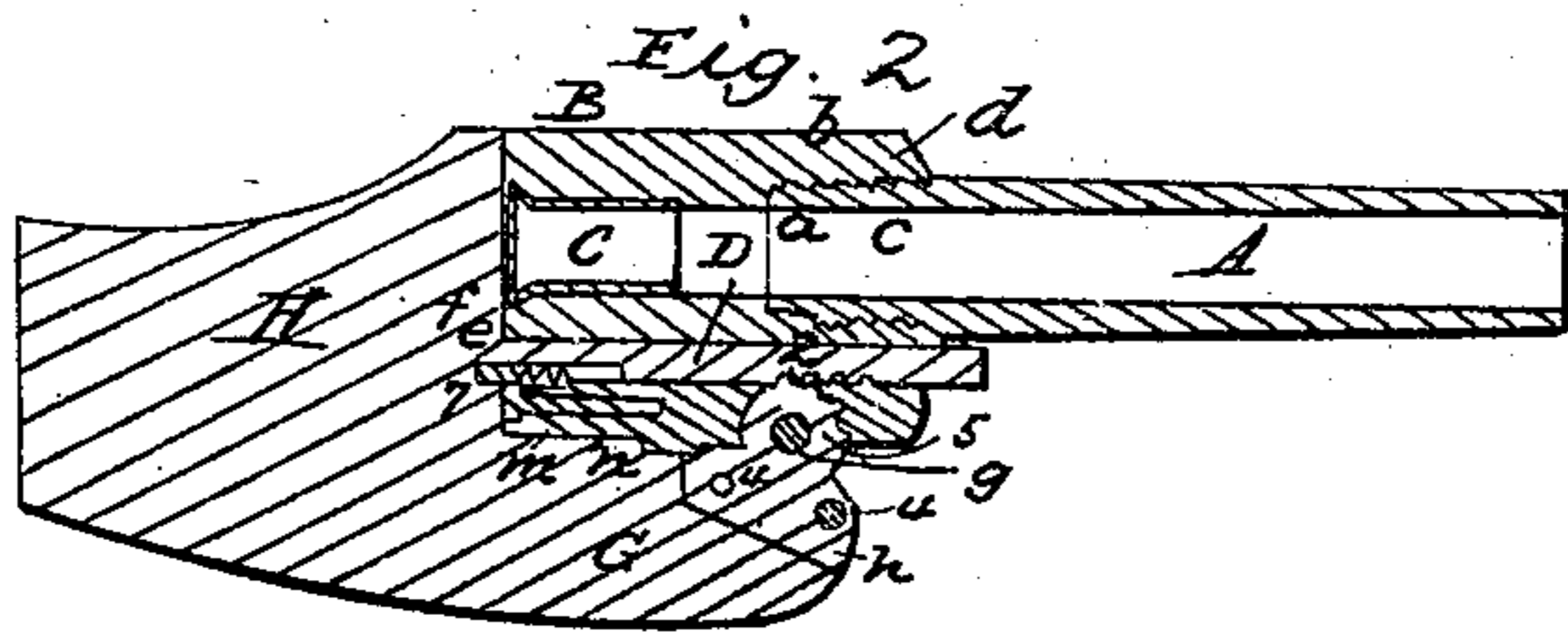
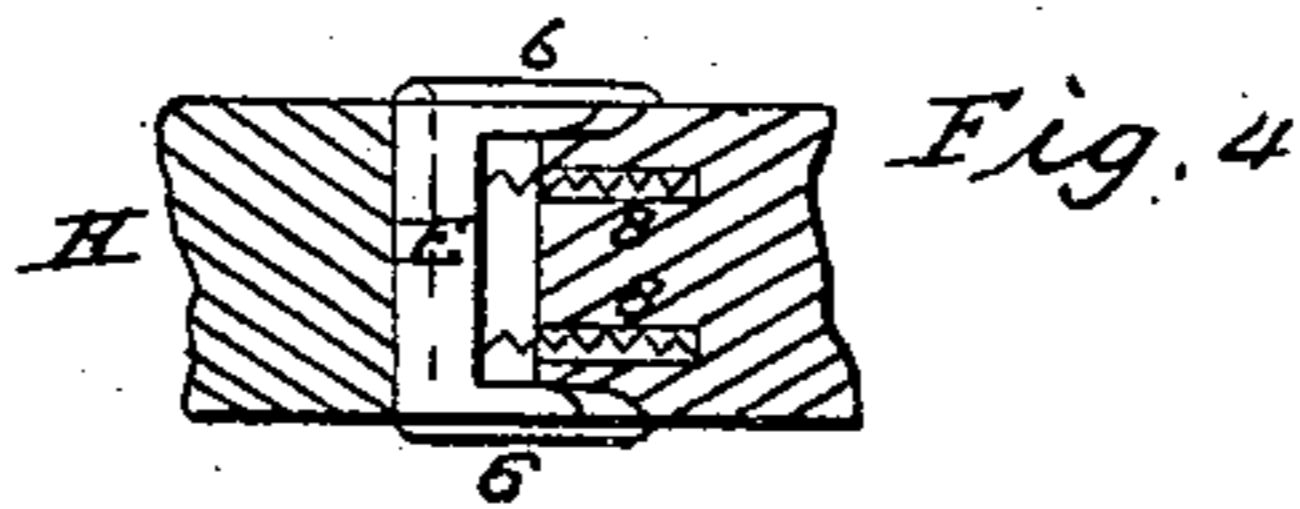
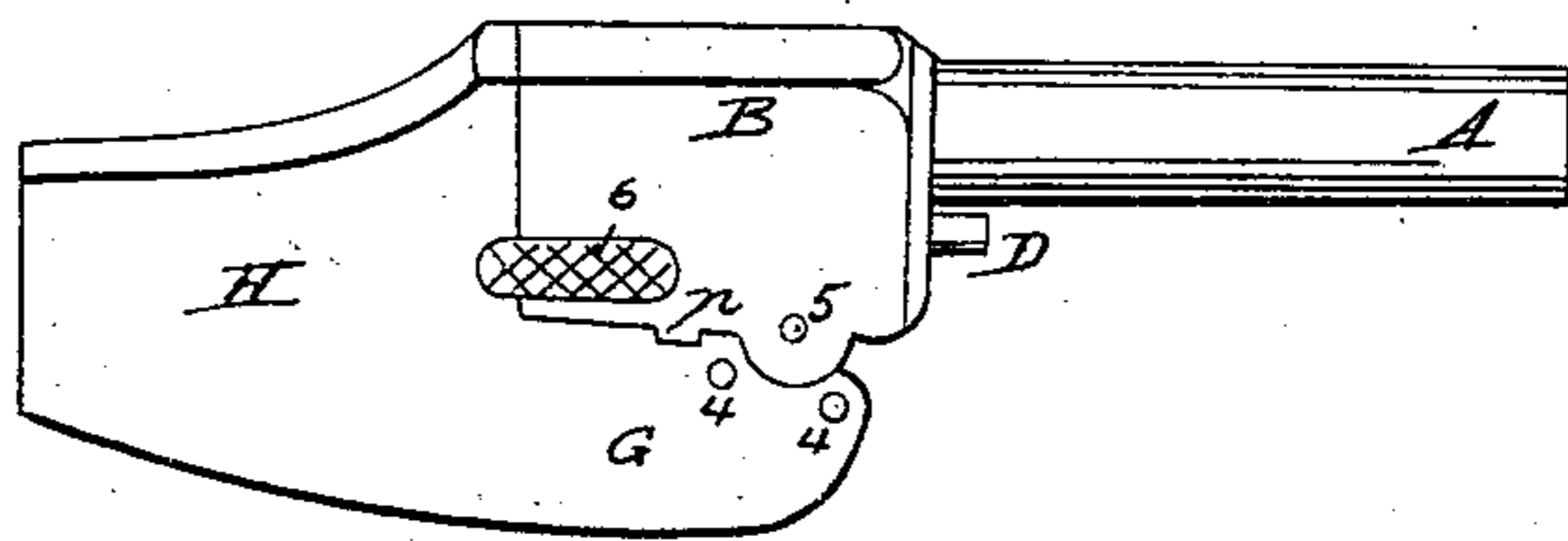
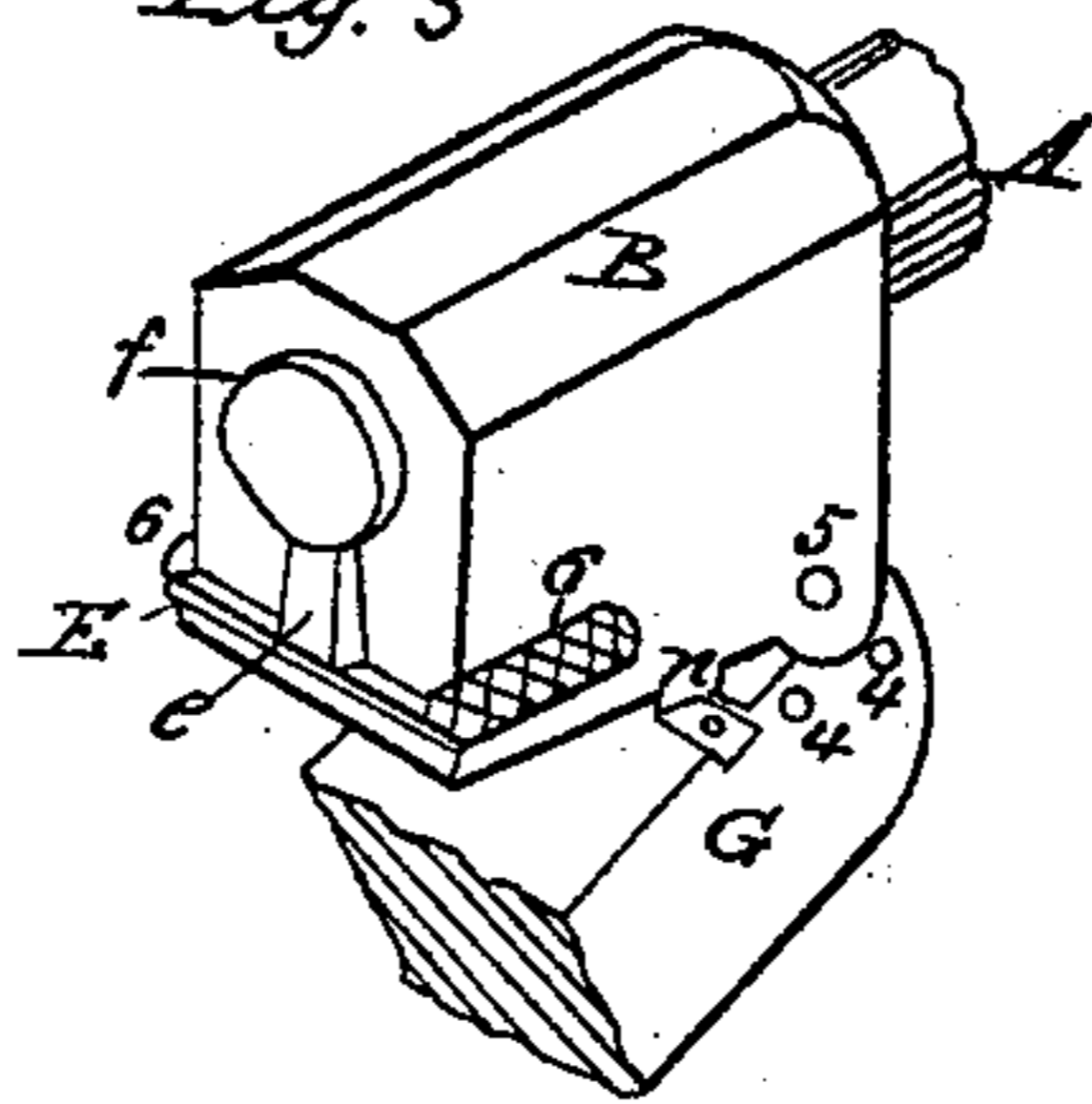


Fig. 3



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Letters Patent No. 91,616, dated June 22, 1869

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

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

Know all men by these presents:

That I, LEWIS T. FAIRBANKS, of the city and county of Worcester, and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Breech-Loading Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a side view of so much of a breech-loading fire-arm as is necessary to illustrate my present improvements;

Figure 2 represents a longitudinal central section of the parts shown in fig. 1;

Figure 3 represents a rear view of the hinged breech-piece as it appears when the front of the barrel is depressed, for the purpose of removing the metallic cartridge-shell; and

Figure 4 represents a horizontal section of so much of the parts shown in fig. 1 as is necessary to show or illustrate the operation of the catch or holding-device.

To enable those skilled in the art to which my invention belongs, to make and use the same, I will describe it more in detail.

In the drawings—

A is the front part of the barrel, the rear end, *a*, of which is turned down smooth, to fit the inside of the smooth part, *b*, of the hole or chamber in the hinged breech-piece B.

The part *c* of the barrel A is provided with a screw-thread, to fit the threaded part, *d*, of the chamber in the piece B.

It will be seen, by reference to fig. 2 of the drawings, that when the rear part of barrel A is screwed into the chamber in the hinged part B, the rear end thereof fits up close against shoulder 1 in said chamber.

The chamber in the hinged part B extends entirely through it, so that the loaded cartridge or shell C can be inserted from the rear, as fully indicated in the drawings.

The part B is recessed or cored out, to receive the shell-extractor D, which is provided, on its rear end, with an upright projection, *e*, the upper rear part of which is recessed or cut away, to fit the flange, *f*, of the shell C, as fully shown in figs. 2 and 3, while the lower rear part is recessed or cut away, to allow the catch-piece E to work back and forth, as will be hereafter explained.

The under side of the shell-extractor D is provided with teeth, 2, to fit the teeth or cogs 3, in the circular projection *g*, of the piece *h*, the latter piece being secured in a recess or slot cut in the front upper part of the supporting-arm G.

Piece *h* is held in place by pins 4 4, as indicated in the drawings.

The lower part of the piece B is recessed out sufficiently to receive the cogged projection *g*, to which it is hinged or secured by means of pin 5.

By this construction and arrangement of the parts, it will be seen, that when the front of the barrel A is depressed, or turned on pin 5, the shell-extractor D is caused to move back, relatively, as respects the hinged breech-piece B, thereby withdrawing the metallic shell C, as indicated in fig. 3, and is caused to assume the position shown in fig. 2, when the barrel is swung back into a horizontal position.

The cartridge-extractor D, therefore, has a positive motion imparted to it in both directions, such motions being produced by the simple depression and elevation of the barrel A, thus obviating the complicated and independent devices in common use for operating the shell-extractor in breech-loading fire-arms.

The catch-piece E is provided with flanges 6 6, which fit on each side of the hinged piece B, and by means of which said catch-piece can be forced forward, by the fingers, out of the notch 7, in the front part of the recoil-piece or head H, to release the hinged piece B, so that the barrel can be depressed, as shown in fig. 3, for the purpose of withdrawing the empty shell, and inserting a loaded one.

Catch-piece E is forced out by means of spiral springs 8, inserted in holes in the lower rear side of the part B, as indicated in fig. 4.

Catch-piece E is provided with a lip, which strikes against the head of screw *m*, thereby preventing the springs from throwing it too far out, when in the position shown in fig. 3. (See fig. 2.)

To relieve somewhat the head of the recoil-piece H, a projection, *n*, is formed on the under side of the piece B, which fits into a corresponding recess, *o*, in the upper side of arm G, when the parts are locked in position for firing, as shown in figs. 1 and 2.

Slide or catch-piece E is fitted to work upon a slight incline, the rear part being the highest, and slot 7 is made of a corresponding shape, thereby securing the said slide-piece from liability of being slipped back prematurely out of said slot by a simple downward pressure upon the front of barrel A.

By making the part B, which receives the cartridge, separate from the front part, A, of the barrel, the arm can be made much cheaper, while, at the same time, the necessary strength of the breech is retained.

The slide catch-piece F serves as a support for the rear end of the shell-extractor D.

By my improvements, the construction of a breech-loading fire-arm is greatly simplified and cheapened.

Having described my improvements in breech-loading fire-arms,

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

1. The arrangement, in a break-down breech-loading fire-arm, such as described, of the toothed shell

extractor, held and sliding in the rear end of the hinged barrel, with the stationary cog-projection *g*, to which the barrel is hinged, and by which the extractor is operated, when the barrel is tilted, substantially as shown and set forth.

2. The arrangement, in the rear end of the hinged barrel, and with respect to the recoil or locking-piece, of the catch-piece *E*, springs *s s*, and stop *m*, substantially as and for the purposes described.

3. The combination, in the rear end of the hinged barrel, of the shell-extractor, and the sliding catch-

piece arranged underneath, and so as to support the rear end of said extractor, substantially as shown and set forth.

4. The construction and arrangement of the hinged piece *B*, supporting-arm *G*, shell-extractor *D*, and piece *h*, provided with cog-projections, substantially as and for the purposes shown and set forth.

LEWIS T. FAIRBANKS.

Witnesses:

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