(No Model.)

W. H. BRIGGS.

BREECH LOADING FIRE ARM.

No. 245,779. Patented Aug. 16, 1881.

Fig 4

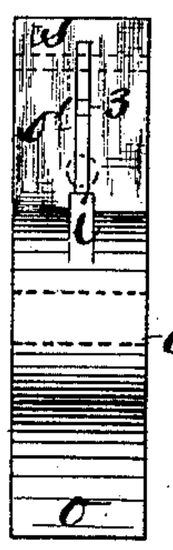

Fig 3

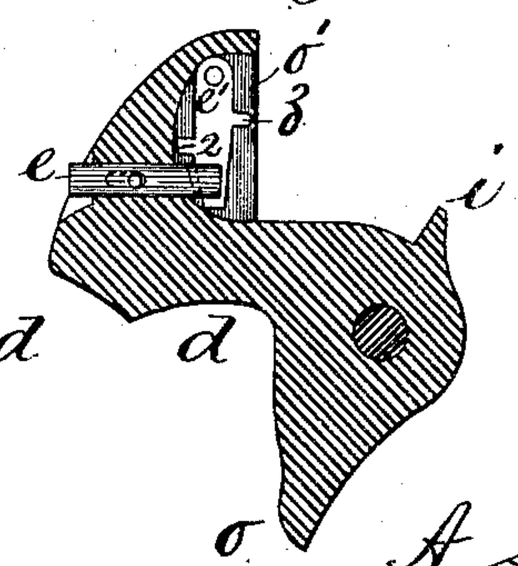

Fig 1

Fig 2

Witnesses
Wm H Chaplin.
W. S. Gompf.

Inventor
William H Briggs
By Henry A Chaplin
attorney.

UNITED STATES PATENT OFFICE.

WILLIAM H. BRIGGS, OF CHICOPEE FALLS, MASSACHUSETTS.

BREECH-LOADING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 245,779, dated August 16, 1881.

Application filed January 21, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. BRIGGS, a citizen of England, residing at Chicopee Falls, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Breech-Loading Fire-Arms, of which the following is a specification.

My invention relates to the details of construction of a pivoted breech-piece and an operating-lever therefor adapted to operate said breech-piece and the hammer, and to improvements in firing-pin devices, adapting them to act upon either a center or rim fire cartridge, the object being to strengthen and simplify the construction of breech-loading arms which are adapted to be operated by a single lever to open the breech of the gun, extract the cartridge, and cock the hammer at one movement of said lever.

In the drawings forming part of this specification, Figure 1 is a side elevation, partly in section, of the breech part of a fire-arm, showing the operating parts of the breech-work and the cartridge-chamber of the barrel and the cartridge therein. Fig. 2 is also a side elevation, partly in section, showing the position of the operating parts of the breech-work when the breech is open and the cartridge-shell partly extracted. Fig. 3 is a vertical section of the breech-piece and the firing-pin devices. Fig. 4 is a front elevation of the breech-piece.

A is the breech-frame. B is the barrel. *d* is the pivoted breech-piece. *c* is the operating-lever. *a* is the hammer. *e* is the firing-pin. *e'* is the pivoted cartridge-striker. *i* is an extractor-arm on the breech-piece *d*. *i'* is the extractor. 2 and 3 are striking-points on the cartridge-striker *e'*.

In this arm the barrel B is attached to the frame A in the usual manner. Under the cartridge-chamber, in the rear end of the barrel, is drilled a hole for the reception of the longitudinal portion of the cartridge-extractor *i'*, its vertical arm being let into the end of the barrel under the cartridge-chamber, and formed so that when the cartridge is pushed into the chamber a projection on said vertical arm lies back of the rim of the cartridge in the usual way. In the longitudinal portion of said extractor is formed a cavity, into which the end of the arm *i* on the breech-piece *d* enters. The said breech-piece is pivoted, as shown, in frame A, under the cartridge-chamber of the barrel, as shown in Figs. 1 and 2, and is provided with an arm, *o*, hanging below its pivot. The portion *s* of the breech-piece *d*, which covers the cartridge when the breech is shut, is provided with a narrow cavity, *o'*, the width of which is shown in Fig. 4, and a side view of which is shown in Fig. 3, in which is pivoted the cartridge-striker *e'*. Said cartridge-striker is provided with two striking-points, 2 and 3, located on the opposite sides of said striker, one of which, 3, is adapted to strike the center of a center-fire cartridge-head in the gun, and the other one, 2, to strike the rim of a cartridge when a rim-fire cartridge is used. The said cartridge-striker is secured in the cavity of the breech-piece by a transverse pin, *v*, passing through said breech-piece and through the upper portion of said striker, so that the lower portion of the striker may have a vibratory movement within said cavity.

In the position in which the striker is shown in Fig. 3 the striking-point 3 stands in a position to strike the center of a cartridge-head, as also shown in dotted lines in Fig. 1. To adapt said striker to be used with a rim-fire cartridge, pin *v* is withdrawn, the striker is removed from the cavity, turned around to bring the striking-point 2 outward, replaced in the cavity, and may now be used to explode a rim-fire cartridge, as the striking-point 2 stands opposite to the lower side of the cartridge-chamber.

The firing-pin *e* is slotted transversely across its inner end, and the lower end of the striker *e'* lies in said slot, and said firing-pin is located in a proper line and position in the breech-piece *d* to be struck by the hammer *a*.

The lever *c* is pivoted in frame A, near its lower side, as shown, and runs back under the frame, and its extreme end is bent up and caught upon a stud, *x*, set in the under side of the frame in the usual way, as shown in Fig. 1. The end c^2 of said lever *c*, above its pivot-point in frame A, reaches up under the breech-piece *d*, as shown in Fig. 1, when the breech is closed, as there shown, holding the breech-piece firmly in a closed position against the end of the cartridge.

The hammer and its operating parts are of

the ordinary construction, except that the hammer is adapted to swing under the breech-piece when the latter closes against the end of the barrel, and is of such form as to be operated upon by lever *c*, as and for the purpose hereinafter stated.

The operation of the lever *c*, breech-piece *d*, and the hammer *a* when the breech is opened and an empty cartridge-shell extracted is as follows: The lower end of lever *c* is forcibly swung off from the stud *x*, and the lower end of the lever swung from thence toward the muzzle of the barrel to the position shown in Fig. 2. In so swinging said lever its upper end, c^2, first strikes against the hammer *a*, moving it away from the firing-pin and swinging it back from under the end of the breech-piece. As soon as the hammer has been so moved the said upper end of lever *c* has also passed from under the breech-piece, and its forward side below its pivot-point will then strike against the lower end of the arm *o* on the breech-piece, causing said breech-piece to swing upon its pivot down to the position shown in Fig. 2. By the above-described movement of lever *c* the hammer will have been cocked and the breech thrown open. The breech-piece in swinging, as above described, has caused its arm *i*, which enters the cavity in the extractor *i'*, to move the latter against the rim of the cartridge-shell and draw it out to the position shown in Fig. 2, leaving it free to be removed by the fingers. A loaded cartridge may now be inserted into the barrel and lever *c* swung back to the position shown in Fig. 1, carrying with it the breech-piece *d* up against the end of the barrel, in which position it will be readily locked by the end of lever *c*, above its pivot-point, standing under it, as shown in Fig. 1. When the breech-piece has been so moved it will have forced the cartridge into its place in the chamber in the barrel ready for firing, and the hammer will be in a cocked position, as shown in Fig. 2, ready to act upon the firing-pin and explode the cartridge.

I am aware that it is not new to pivot a breech-piece in the frame of a fire-arm under the end of the barrel and support such breech-piece in a closed position against the end of the barrel by a lever pivoted in said frame, as in Cochran's patent of May 7, 1872, and I do not claim such construction broadly; but

What I claim as my invention is—

1. In combination, frame A, the breech-piece *d*, having thereon the arm *o*, extending below the pivot-point of lever *c* in said frame, and lever *c* hung close by said arm *o*, and having its end c^2 extending from its pivot-point up under said breech-piece, substantially as and for the purpose set forth.

2. In combination, frame A, the hammer *a*, the breech-piece *d*, having thereon the arm *o*, extending below the pivot-point of lever *c* in said frame, and said lever *c* hung close by said arm *o*, and having its end c^2 extending from its pivot-point up under said breech-piece, substantially as and for the purpose set forth.

3. In combination, the breech-piece *d*, provided with the cavity *o'*, the reversible cartridge-striker *e'*, having thereon, upon opposite sides thereof, the striking-points 2 3, and the firing-pin *e*, substantially as set forth.

WILLIAM H. BRIGGS.

Witnesses:
GEO. W. HADLEY,
ETHAN HADLEY.