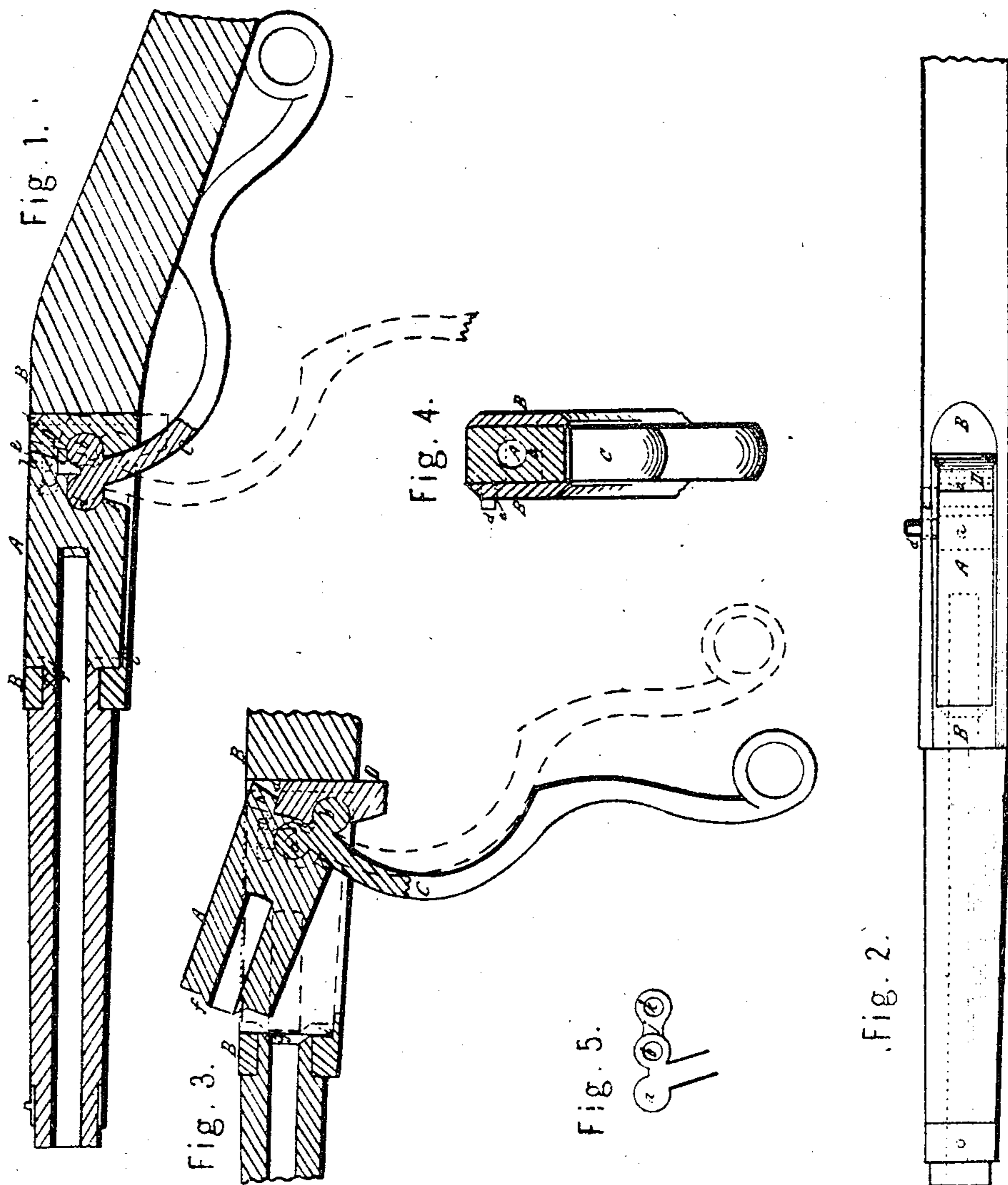


J. C. HOWE.
Breech-Loading Fire-Arm.

No. 11,862.

Patented Oct. 31, 1854.



UNITED STATES PATENT OFFICE.

JOHN C. HOWE, OF MILWAUKEE, WISCONSIN.

IMPROVEMENT IN FIRE-ARMS.

Specification forming part of Letters Patent No. 11,862, dated October 31, 1854.

To all whom it may concern:

Be it known that I, J. C. HOWE, of the city and county of Milwaukee, and State of Wisconsin, 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 same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a longitudinal section of the breech and part of the stock and barrel of a gun constructed according to my invention, showing the breech in condition for firing. Fig. 2 is a top view of the same. Fig. 3 is a section of similar character to Fig. 1, but showing the breech in condition for loading. Fig. 4 is a transverse section through the chamber. Fig. 5 illustrates a modification of one of the details employed in my improvement.

Similar letters of reference indicate corresponding parts in the several figures.

In fire-arms constructed according to this invention a chambered breech is employed, which fits to the barrel with a male and female cone, and is capable of receiving two movements, namely: one a short distance back and forth in line with the barrel, to open and close the chamber and barrel, and another to raise the mouth of the chamber above the barrel, to receive the charge. A chambered breech having the above movements has been before employed, and therefore does not constitute my invention, which consists in certain simple and effective means of constructing and applying the same, whereby both the necessary movements are obtained by a single movement of a lever under the stock.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A is the chambered breech, whose transverse section is of quadrangular form and its sides parallel longitudinally, in order that it may fit in a parallel opening made in the stock to receive it. That part B of the stock which contains it is made of metal, and corresponds with what is termed in other breech-loading guns the "breech-supporter." The back of the breech is connected by a hinge or knuckle joint, *a*, with a lever, C, which stands below the stock and forms the trigger-guard,

and the same lever is connected by another hinge or knuckle joint, *b*, a short distance behind *a*, with a sliding piece, D, which fits with a tongue, *c*, on each side, and a corresponding groove, *d*, in the opening in the stock, so that it may slide up and down therein, but is capable of no other movement. The lever C and the sliding piece D are of the same width as the breech, so that laterally they fill the opening in the stock. All that confines the breech-lever and sliding piece within the stock and prevents them falling or being withdrawn from it is a stud, *e*, which is secured in one side of the breech immediately above the joint *a*, and fits in a slot, *f*, which is parallel with the bore of the barrel, in one side of the stock. The stud *e* is represented by a dotted circle in Figs. 1 and 3, and also represented in Figs. 2 and 4, and the slot is represented dotted in all those figures. The parts are all so constructed and arranged that when the breech is in position for firing, as represented in black outline in Fig. 1, the centers of the joints *a* and *b* stand in a line parallel with the bore of the gun, and thus prevent the driving back of the breech. The lever C is at that time close to the stock. The breech is withdrawn by pulling down the lever, which, as the joint *a* is prevented moving upward by the stud *e* above, draws down the joint *b*. The moving down of the joint *b* is provided for by the manner of fitting the sliding piece D, and as the sliding piece is drawn down the breech is drawn back. The shape of that part *l* of the back of the breech below the joint *a* is of such form that when the breech is drawn far enough back to draw its male cone *f* entirely from the female cone *g* of the barrel, as shown in red outline in Figs. 1 and 3, it comes in contact with the lever, and the further drawing back is prevented. The lever and the breech then form, in effect, parts of the same lever, with *b* as its fulcrum, and the further drawing down of the lever causes the front end of the breech to be raised to the position shown in black in Fig. 3, to receive the charge, causing at the same time an extended portion, *h*, of the upper part of the breech to move over the sliding piece D. After loading, the breech is returned by moving the lever upward, during the early part of which movement the stationary position of the center *b* is maintained by the portion *h* of the breech preventing the as-

cent of the sliding piece. By the time the breech reaches the position opposite the barrel (represented in red) the further descent of the front of the breech is prevented by a small resting-piece, *i*, on the front part of the opening in the stock, and the part *h* of the breech, having then worked clear of the sliding piece D, allows the latter to move upward, and the upward movement of the joint *b* drives the breech forward and the cone *f* hard up into the cone *g* of the barrel.

In the modification represented in Fig. 5 the sliding piece D is intended to be dispensed with and its place supplied by a link, *j*, the front end of which forms part of the joint *b*, and the back end is connected by a knuckle-joint, *k*, with the stock, so that the lever and link form a toggle-joint. This arrangement will enable the same movements to be given to the breech by the movement of the lever, and the breech will be locked in place for firing by the joints *a b k* all being in line at that time.

I am aware that the breech has been before similarly held in its place and made capable

of the double movement herein described by means of a slot, *e*, and stop *d*; also, that a sliding cam-key at the back of the breech has been used to keep the breech steady against recoil, and serving to admit of the swiveling of the breech when required; but such devices have been differently constructed and less simply and perfectly arranged or combined with and operated on by the lever beneath. Such, therefore, of themselves alone I do not claim; but

I do claim as new and useful and desire to secure by Letters Patent—

The arrangement herein specified of the breech-operating lever C by its hinges or joints *a* and *b* with the breech A, hung and operating as described, and movable guide or slide D at the back of the breech, the whole being constructed, combined, and operating together substantially as herein set forth.

JOHN C. HOWE.

Witnesses:

O. D. MUNN,
G. W. KELLOGG.