

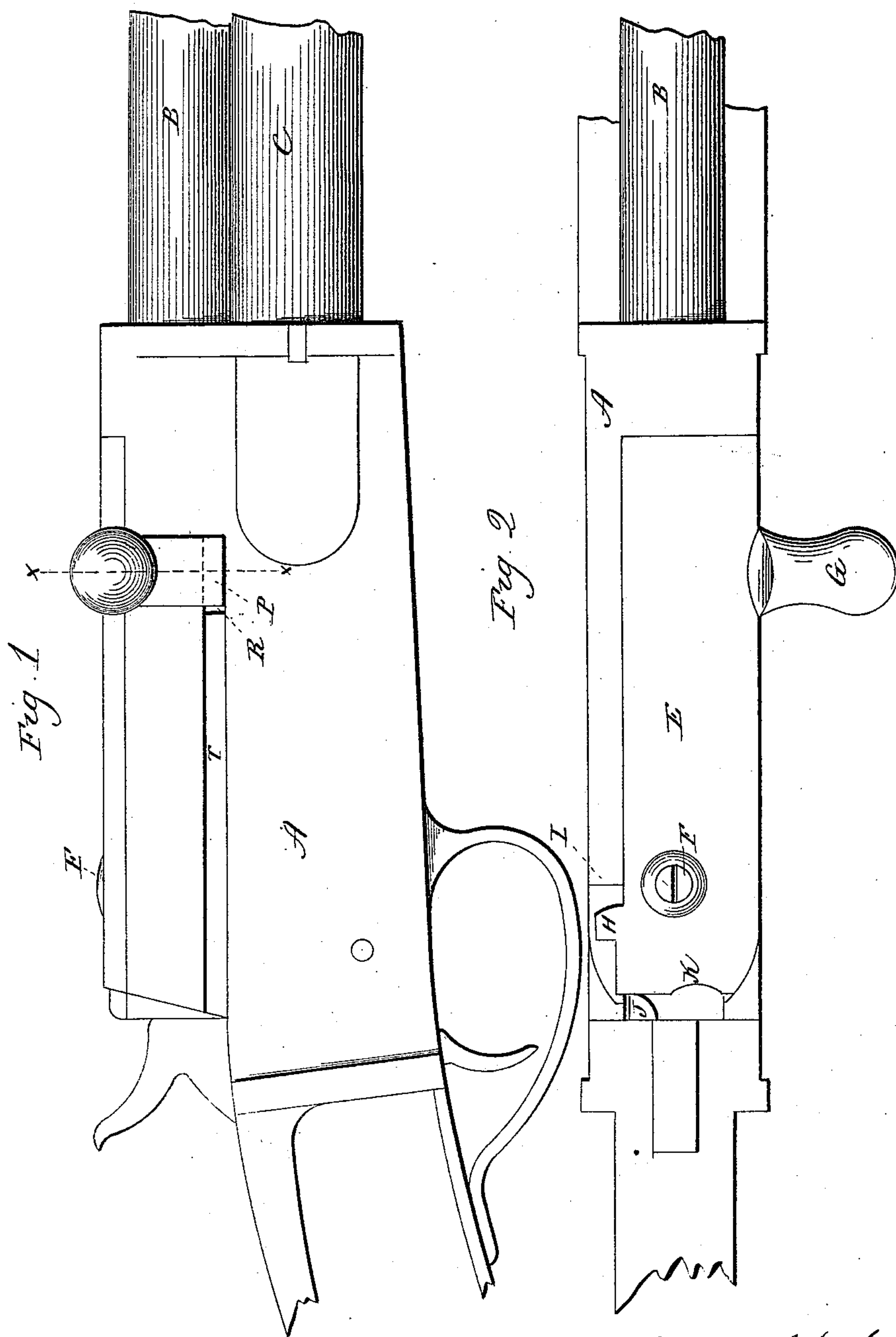
(No Model.)

3 Sheets—Sheet 1.

J. MASON.
BREECH LOADING FIRE ARM.

No. 414,651.

Patented Nov. 5, 1889.



Witnesses
John H. Shumway
Fred C. Earle.

Joseph Mason.
By atty. General
Wm. S. Egle.

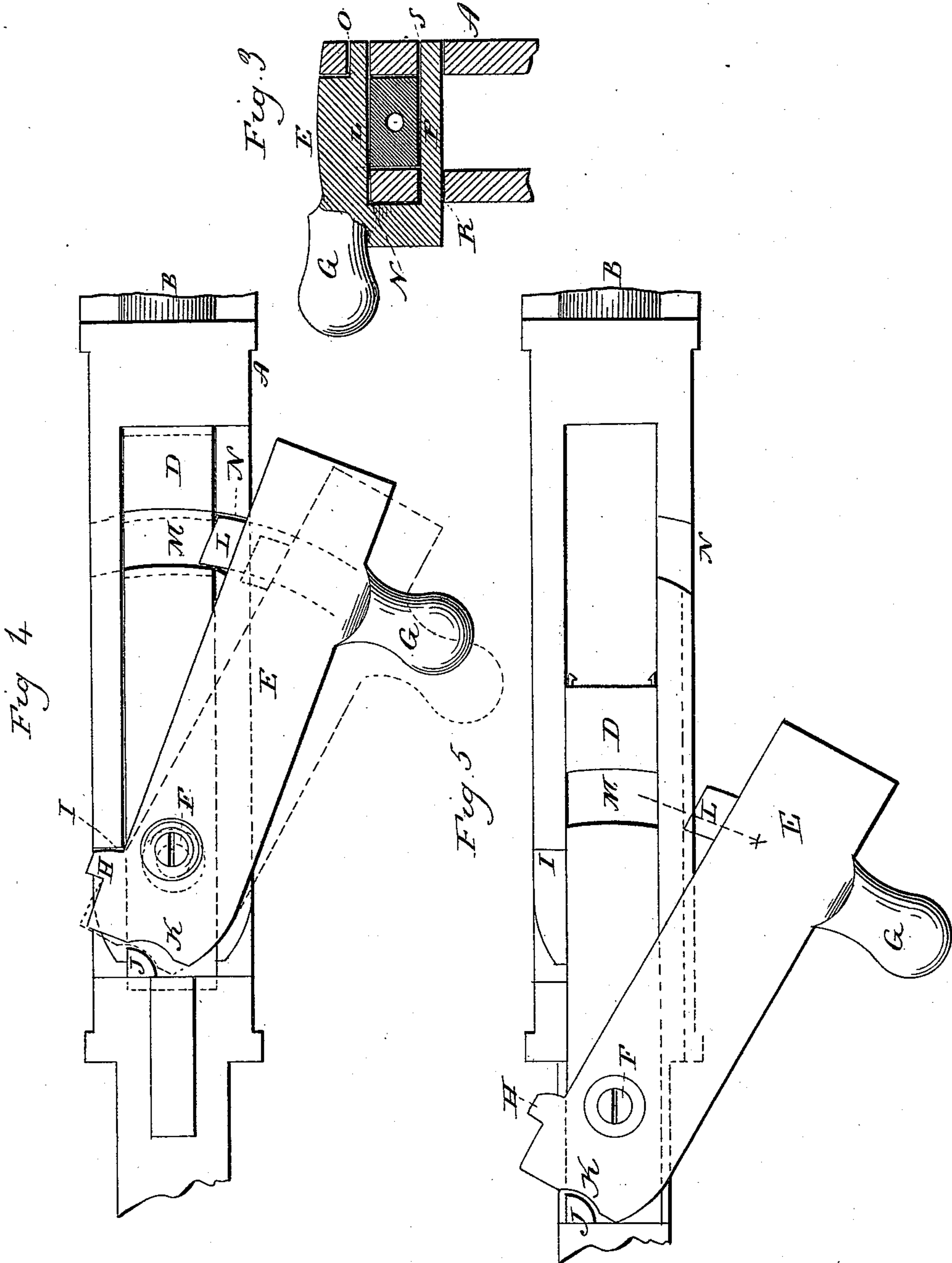
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3 Sheets—Sheet 2.

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BREECH LOADING FIRE ARM.

No. 414,651.

Patented Nov. 5, 1889.



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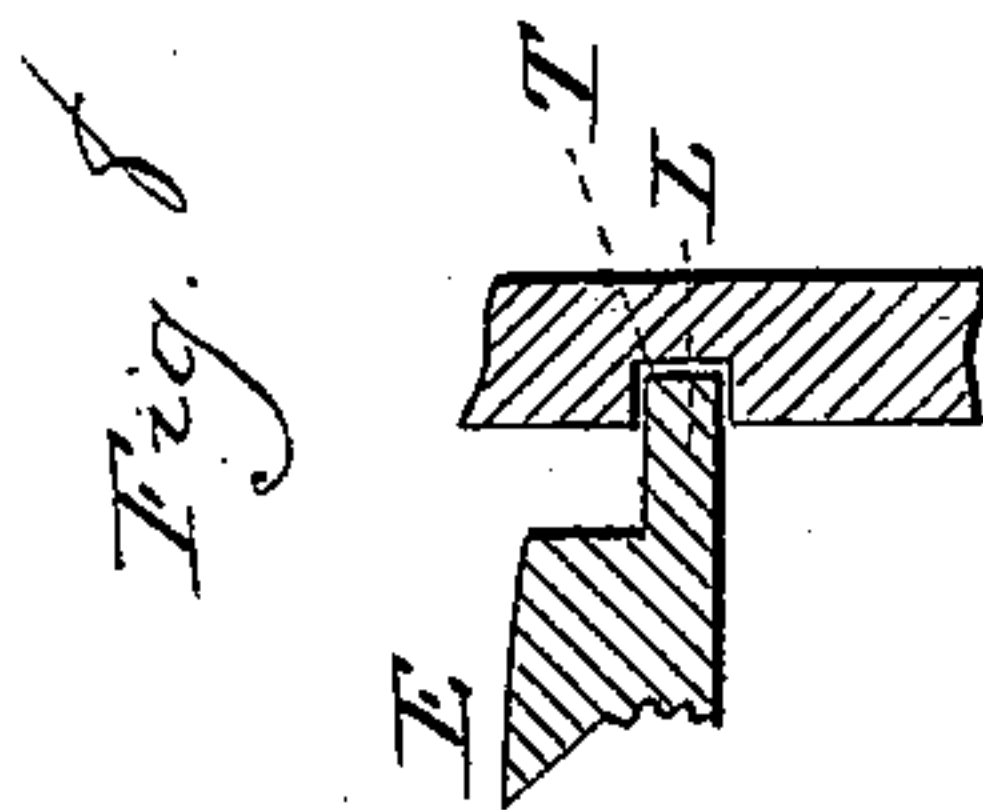
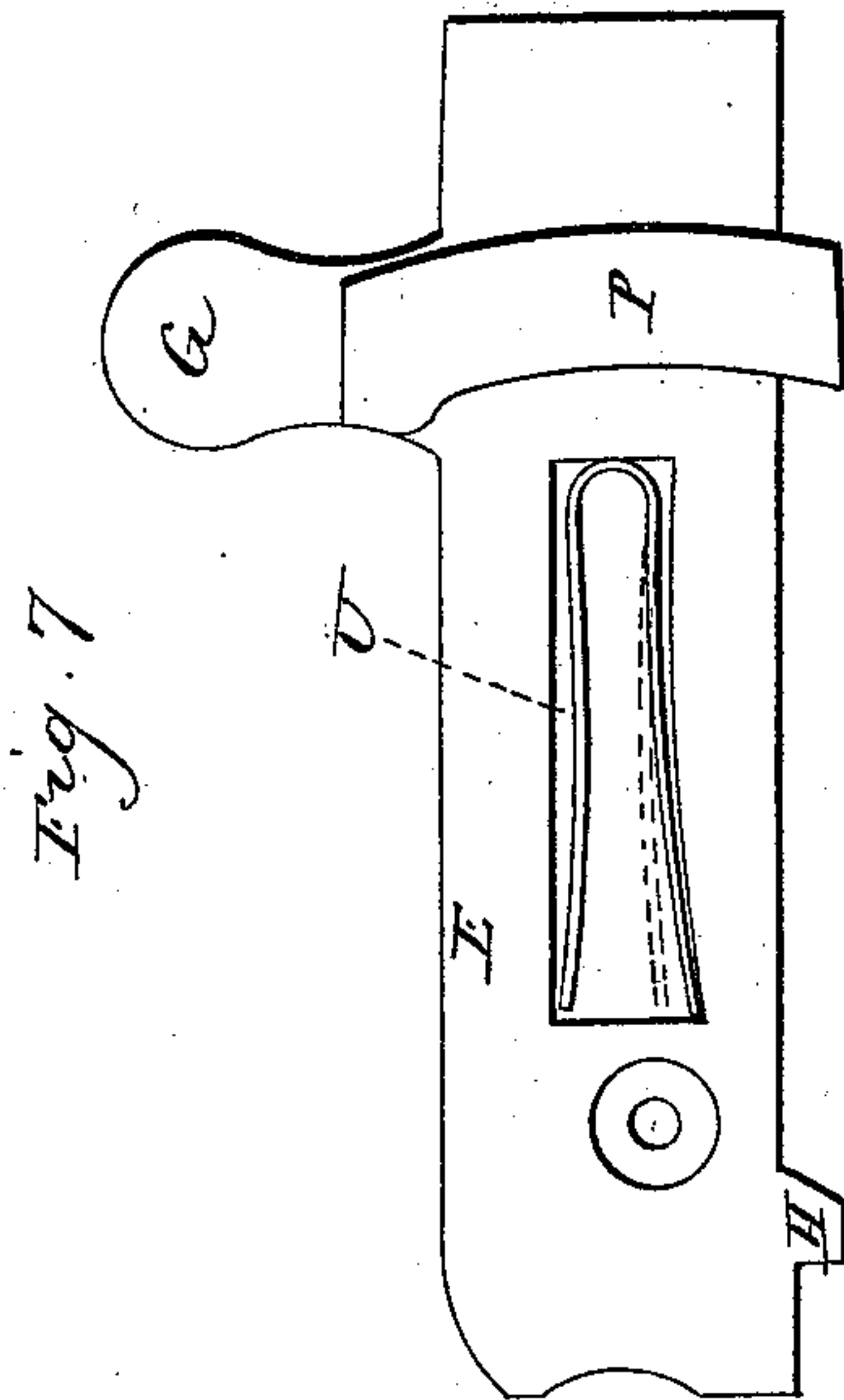
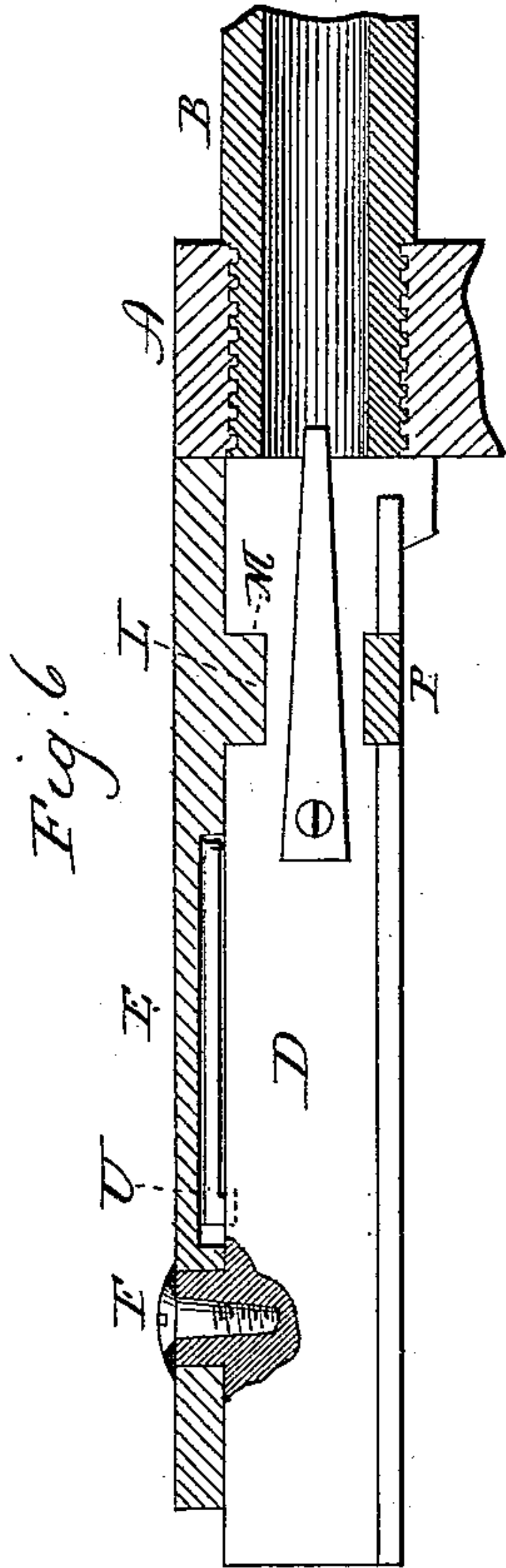
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3 Sheets—Sheet 3.

J. MASON.
BREECH LOADING FIRE ARM.

No. 414,651.

Patented Nov. 5, 1889.



Witnesses,
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UNITED STATES PATENT OFFICE.

JOSEPH MASON, OF NEW HAVEN, CONNECTICUT, ASSIGNOR OF ONE-HALF
TO ISAAC MASON, OF SAME PLACE.

BREECH-LOADING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 414,651, dated November 5, 1889.

Application filed August 5, 1889. Serial No. 319,798. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH MASON, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Breech-Loading Fire-Arms; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of so much of the arm as necessary for the illustration of the invention; Fig. 2, a top view of the same; Fig. 3, a transverse section on line *x* of Fig. 1; Fig. 4, a top view illustrating the laterally-swinging movement of the lever to start the breech-piece; Fig. 5, a top view representing the breech-piece in its open position; Fig. 6, a longitudinal section through the lever, showing the breech-piece in side view; Fig. 7, an under side view of the cover detached and inverted to show the spring; Fig. 8, a transverse section on line *x* of Fig. 5.

This invention relates to an improvement in that class of breech-loading fire-arms in which the breech-piece is arranged in the receiver in rear of the barrel, and so as to move backward and forward longitudinally in line with the barrel, and in which a handle is provided as a means for operating the breech-piece, the object of the invention being a construction which will leave the receiver closed over the breech-piece when the breech-piece is in the closed position, to provide a strong leverage for the breech-piece as it commences its opening movement, and so as to the more readily start the exploded shell from the barrel, and also to securely lock the breech-piece against recoil when in the closed position; and the invention consists in the construction as hereinafter described, and particularly recited in the claims.

A represents the receiver, to the forward end of which the barrel B is attached in the usual manner, and as here represented a magazine C is applied below, the invention being applicable to breech-loaders, whether magazine or single loaders.

D represents the breech-piece, which is arranged in the receiver and suitably guided

so as to move longitudinally backward and forward in opening and closing, this being a common and well-known arrangement of breech-piece. The receiver is open above the breech-piece, also in the usual manner, so that a cartridge may be introduced through the top of the receiver forward of the open breech-piece into the barrel; or the shell may be ejected through the said opening, as usual in this class of fire-arms.

In the top of the breech-piece a laterally-swinging lever E is hung upon a pivot F, the pivot being near the rear end of the breech-piece, and the lever extending forward, the said lever is in shape so that when the breech-piece is in the closed position, as seen in Fig. 2, the said lever forms a cover for the opening into the receiver over the breech-piece. The lever is provided with a laterally-projecting handle G, by which it may be operated. Near the pivot and upon the side opposite the handle a lateral shoulder H is formed, which normally stands in rear of a shoulder I on that side of the receiver, and so that as the lever E is turned to one side, as represented in Fig. 4, the said shoulder H will strike the shoulder I, and then by a continued movement of the lever, as indicated in broken lines, Fig. 4, the shoulder of the lever bearing against the shoulder I of the receiver operates upon that shoulder I as a fulcrum, and as that fulcrum is stationary the pivot on which the lever turns must move rearward and so as to start the breech-piece, as indicated in broken lines, Fig. 4. This movement of the breech-piece, under the great power exerted by the lever, will be sufficient to easily start the exploded shell from the barrel.

A stop J is provided on the breech-piece, against which a corresponding shoulder K on the lever may strike when this starting movement of the breech-piece is completed, and as represented in broken lines, Fig. 4. The gun is held in one hand, the other hand applied to the handle G to give a rear movement to the lever, which movement first causes the lever to swing outward to produce the starting movement of the breech-piece before described, and until the shoulder K of the lever is brought against the stop J of the breech-

piece. Then a continued rearward pull upon the handle G will draw the breech-piece to the wide-open position, as represented in Fig. 5. Then a forward push upon the handle will force the breech-piece to the closed position and return the lever to its normal position.

To lock the breech-piece against recoil, the lever E is provided with a segment-shaped transverse rib L upon its under side, which works through a corresponding groove M in the top of the breech-piece, (see Figs. 3, 4, 5, and 6,) and through a corresponding notch N on the side of the receiver over which the lever swings, as seen in Fig. 4, into a corresponding recess or opening O on the opposite side of the receiver, as seen in Fig. 3, and so that when the breech-piece is in the closed position, as seen in Figs. 3 and 6, this rib interlocks the breech-piece with the receiver and forms a bolt between the receiver and breech-piece to resist recoil.

The first movement of the lever, as indicated in Fig. 4, and before the shoulder H comes to a bearing against the shoulder I, is sufficient to take the locking-rib L out of the path of rear movement of the breech-piece, and then as the swinging movement of the lever continues the rib passes to the outside of the receiver, as represented in broken lines, Fig. 4, and so as to permit the rear movement of the lever and breech-piece, as seen in Fig. 5. This projecting rib L rides upon the exterior of the receiver and prevents the inward swinging movement of the lever until the breech-piece shall approach its closed position, as represented in broken lines, Fig. 4, when a continued pressure forward upon the handle and lever will bring the breech-piece to its closed position and force the lever into its closed position to lock the breech-piece.

As an additional security against recoil of the breech-piece, a bolt P is made as a part of the lever E, which is of segment shape, like the rib L, and so as to work through an opening R on the handle side of the receiver through an opening in the breech-piece and into a corresponding opening S on the opposite side of the receiver, as seen in Fig. 3, which locks the breech-piece in substantially the same manner as does the rib L, thus making a double lock; but either of these locking devices may be omitted, one being sufficient to sustain the breech-piece against ordinary recoil.

In order to withstand any tendency of the lever to turn upward, and so as to support it in its proper relation to the breech-piece, a longitudinal groove T is formed in the breech-piece, extending rearward from the opening R, and the bolt P projects beyond the end of the rib so far as to take into the said groove T when the lever is thrown outward, as seen in Fig. 8. To hold the lever in its closed position, a longitudinal recess U is made between the under surface of the lever and the upper surface of the breech-piece, (repre-

sented in Figs. 6 and 7 as made in the lever,) and into this recess a spring is arranged, one end of which will take a bearing upon the lever and the other end upon the breech-piece, and so that in the first part of the opening movement of the lever the spring will be compressed, as indicated in broken lines, Fig. 7, and so that when the breech-piece is returned to its closed position the spring will react to throw the lever to its closed and locked position and yieldingly hold it in that position.

I do not illustrate the lock mechanism of the arm or other details of construction which are common to arms of this class, this invention not being qualified by the construction of such parts.

As I have stated, the rib or the bolt upon the under side of the breech-piece may either be omitted. One transverse projection from the lever and below to interlock the breech-piece with the receiver as the lever comes to its closed position is all that is necessary.

I claim—

1. In a breech-loading fire-arm, a longitudinally-reciprocating breech-piece arranged in the receiver in rear of the barrel, combined with a laterally-swinging lever pivoted to the breech-piece near its rear end, the lever provided with a handle at its forward end, the lever constructed with a shoulder upon the side opposite the handle and near the pivot, with a stationary shoulder on the receiver corresponding to the said shoulder on the breech-piece, and against which shoulder on the receiver the shoulder on the breech-piece may operate as a fulcrum in the swinging movement of the lever, substantially as described.

2. In a breech-loading fire-arm, the combination of a longitudinally-reciprocating breech-piece, a lever pivoted to the top of the breech-piece near its rear end and so as to swing in a horizontal plane and form a cover to the opening in the receiver over the breech-piece, the said lever provided with a handle at its forward end and constructed with a shoulder near the pivot on the side opposite the said handle, a shoulder on the breech-piece forward of and corresponding to said shoulder on the lever, the breech-piece constructed with a stop, against which the lever will be brought to bear so soon as its lateral swinging movement is completed, substantially as described.

3. In a breech-loading fire-arm, the combination of a longitudinally-reciprocating breech-piece arranged in the receiver in rear of the barrel, a lever pivoted to the breech-piece near its rear end and so as to swing in a horizontal plane, the lever provided with a handle at its forward end, and constructed with a shoulder upon its opposite side near the pivot, a stationary shoulder in the receiver forward of and corresponding to said shoulder on the lever, the lever constructed with a transverse projection below it, the breech-piece and receiver constructed with

corresponding recesses, with which said projection on the lever may engage when the breech-piece is in its closed position, and so as to interlock the breech-piece and receiver in that position, substantially as described.

4. In a breech-loading fire-arm, the combination of a longitudinally-reciprocating breech-piece arranged in the receiver in rear of the barrel, a lever hung upon a pivot upon the top and near the rear end of the breech-piece and so as to swing in a horizontal plane, the lever constructed with a shoulder on one side near the pivot, the receiver provided with a stationary shoulder forward of said shoulder on the said lever, and with which the said lever is adapted to engage in its lateral swinging movement, a stop on the breech-piece, with which the said lever is adapted to engage in its laterally-open position, a longitudinal groove in the side of the receiver parallel with the path of movement of the breech-piece, with a projection from the lever adapted to interlock with said groove when the said lever is in its open position, substantially as described.

5. In a breech-loading fire-arm, the combination of a longitudinally-reciprocating breech-piece arranged in the receiver in rear of the barrel, a lever hung upon a pivot upon the top and near the rear end of the breech-piece and so as to swing in a horizontal plane, the lever constructed with a shoulder on one side near the pivot, the receiver provided with a stationary shoulder forward of said shoulder on the said lever, and with which the said lever is adapted to engage in its lateral swinging movement, a stop on the breech-piece, with which the said lever is adapted to engage in its laterally-open position, the lever and breech-piece upon their adjacent faces constructed with a recess, a spring in said recess, one end bearing against the lever toward its closing position, the other end of the spring bearing against the breech-piece in the opposite direction as a resistance, substantially as and for the purpose described.

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Witnesses:

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