

(No Model.)

W. MASON.
BREECH LOADING FIREARM.

No. 511,631.

Patented Dec. 26, 1893.

Fig. 1

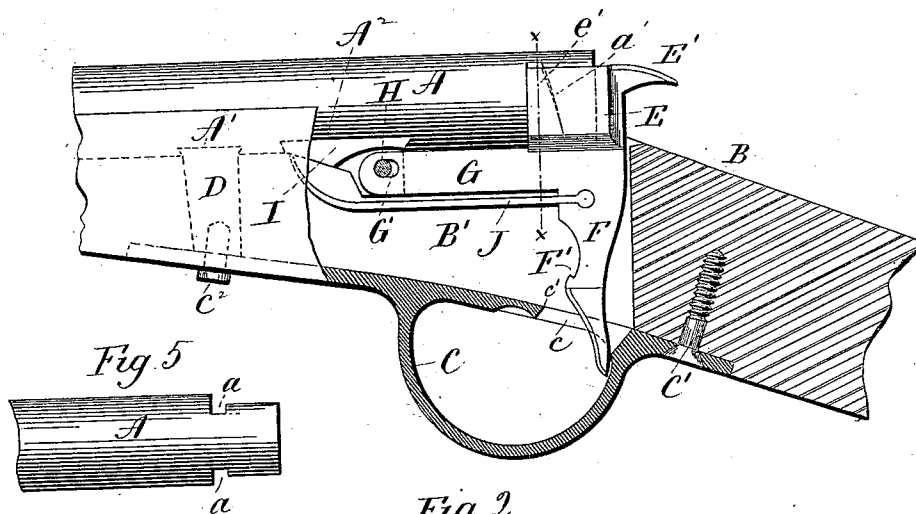


Fig. 2

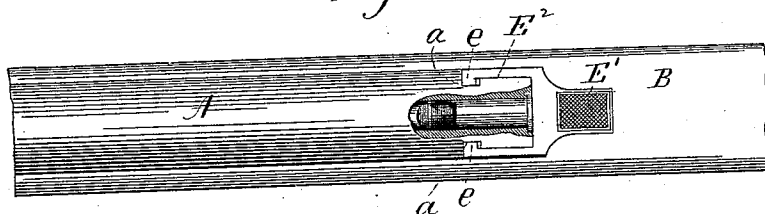


Fig 4.

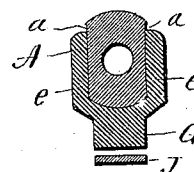
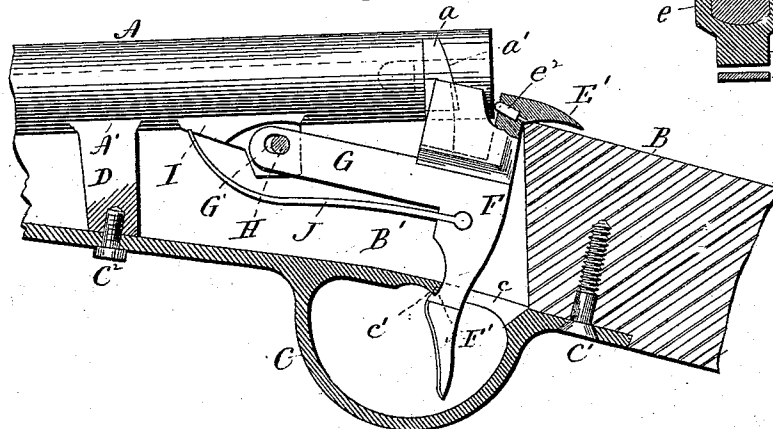


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM MASON, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE
WINCHESTER REPEATING ARMS COMPANY, OF SAME PLACE.

BREECH-LOADING FIREARM.

SPECIFICATION forming part of Letters Patent No. 511,631, dated December 26, 1893.

Application filed May 4, 1893. Serial No. 472,946. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MASON, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Breech-Loading Firearms, (Case B;) 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 broken view partly in side elevation and partly in longitudinal section, of a fire-arm constructed in accordance with my invention; Fig. 2, a similar plan view thereof; Fig. 3, a view corresponding to Fig. 1, but with the combined part shown in its depressed or open position; Fig. 4, a view in vertical transverse section on the line $x-x$ of Fig. 1; Fig. 5, a detached broken plan view of the butt-end of the gun barrel.

My invention relates to an improvement in breech-loading fire-arms of the single-shot rifle type, the object being to produce a reliable, safe and convenient arm of extreme simplicity.

With these ends in view my invention consists in the combination, in a breech-loading fire-arm, with the barrel thereof, of a combined rigid part comprising a breech-block, a trigger, and a suspension arm, the said block being constructed to embrace the butt-end of the barrel on which it has a sliding interlocking movement, and the said arm extending forward and receiving a pivot on which the said part swings in a circular path.

My invention further consists in certain details of construction and combinations of parts as will be hereinafter described and pointed out in the claims.

In carrying out my invention, I employ a gun having a barrel A, a stock B, having a chamber B', and a guard C, the ends of which are extended, and respectively secured to the stock by a screw C', and to the barrel by a screw C'', entering a block D, the upper end of which is fitted into a transverse slot A', formed in the under face of the barrel, and having its ends under-cut. The butt-end of the barrel is constructed with two cor-

responding vertical, transverse grooves a , located opposite each other, and having their rear walls a' curved, as shown by Fig. 1 of the drawings. The butt-end of the barrel is thus provided, as it may be said, with a coupling-head of which the grooves form the neck. I further employ a rigid combined part, comprising a breech-block E, having a rearwardly extending finger-piece E', a trigger F, having a cock-notch F', and a suspension arm G, extending forward from the breech-block, and constructed at its extreme forward end with a longitudinally elongated slot G', which receives a pivot H, on which the said arm, and hence the combined part, is swung, as upon a center, with a capacity for longitudinal movement within the limits of the length of the said slot. The said pivot H, is mounted in the rear end of a receiver I, vertically slotted to receive the forward end of the arm G and having its upper end adapted to enter a transverse slot A'', formed in the under face of the gun barrel A, and having under-cut ends. I have called the part I, a receiver, for the reason that it carries the combined part of my improved gun, although it has little resemblance to the receiver of an ordinary breech-loading arm. The said breech-block E, is constructed with a recess or chamber E'', opening forward, and adapting it to embrace the butt-end of the gun-barrel, the said block being also constructed with flanges e extending toward each other, and adapted to take into the grooves a in the end of the gun-barrel, the rear edges e' of the said flanges being curved in accordance with the curvature of the rear walls of the said slots. Here I may observe that the curvature of the rear walls of the slots and of the rear edges of the flanges is substantially on a circle struck from the pivot H, and thus conforms to the circular path in which the combined part moves up and down. The said breech-block is provided in its outer wall and at a point under its finger-piece e' , with a firing-pin e'' , constructed and arranged to strike the rim of the cartridge a blow just about the time the breech-block reaches its closed position. The trigger F extends downward through an opening c formed in the guard, its cock-notch F' being

arranged to engage with a retaining point *c'* formed by suitably shaping the forward end wall of the said opening *c*. The said combined part is actuated by means of a main-spring *J*, attached at its rear end to it, and engaging at its forward end with the forward end of the receiver *I*, as clearly shown by the drawings.

It will be understood from the foregoing description that the combined part swings in a circular path, and has in addition to such movement, a longitudinal movement within the limits of the slot formed in the forward end of its suspension arm. It will be also understood that the breech-block by virtue of its peculiar construction, has a sliding interlocking movement upon the butt-end of the barrel, which is thereto adapted by grooves formed in it, as described. To load the arm the said part is depressed by downward pressure upon its finger-piece *E'*, whereby the part is not only moved downward, but also pushed forward within the limits of the length of the slot in its suspension-arm, so that the cock-notch of its trigger is engaged with the retaining point *c'* formed in the guard. At this time the butt-end of the barrel will be sufficiently exposed for the introduction of a cartridge thereinto, and the part will be maintained in its said depressed position by means of the engagement of its trigger with the said retaining point. Now, to fire the arm, the trigger is engaged and pulled back, which is permitted by the elongation of the slot in the suspension arm of the part, until it is disengaged from its retaining point, after which the main-spring *J*, will at once operate to throw the part upward and forward, whereby the breech-block will slide over the butt-end of the barrel, closing the breech, and at the termination of its movement, impinging the firing-pin against the rim of the cartridge.

My improved arm, as will be seen, is composed of comparatively few parts, not liable to derangement, and of very convenient manipulation.

I am aware that a rigid combined part comprising a breech block and a suspension arm which extends forward under the bowed end of the barrel is old, and I do not therefore claim that construction broadly.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a breech-loading fire-arm, with the barrel thereof, having its butt end constructed with vertical grooves of a rigid combined part comprising a breech-block, a trigger, and a suspension arm, the said block being constructed to take into the said grooves in the butt-end of the barrel to slide therein, and the said arm extending forward and receiving a pivot on which the said

part swings in a circular path, substantially as described.

2. In a breech-loading fire-arm, the combination with the barrel thereof, having its butt end constructed with vertical grooves of a rigid combined part comprising a breech-block, a trigger, and a suspension-arm having an elongated slot formed in its forward end, the said block being constructed to take into the said grooves in the butt-end of the barrel to slide therein, and said arm extending forward and receiving through its slot a pivot on which the said part swings and has longitudinal movement within the limits of the said slot, substantially as described.

3. In a breech-loading fire-arm, the combination with the barrel thereof, having its butt-end constructed with two corresponding vertical transverse grooves, of a rigid combined part comprising a breech-block and trigger, and a suspension-arm, the said block being constructed to embrace the butt-end of the barrel, and having inwardly projecting flanges which take into the grooves thereof, and the said arm extending forward and receiving a pivot on which the said part swings in a circular path, substantially as described.

4. In a breech-loading fire-arm, the combination with the barrel thereof, having its butt end constructed with vertical grooves, of a rigid combined part comprising a breech-block, a trigger, and a suspension arm, the said block being constructed to take into the said grooves in the butt-end of the barrel and to slide therein, and the said arm extending forward and receiving a pivot on which the said part swings in a circular path, and a receiver attached to the under face of the barrel and carrying the said pivot, substantially as described.

5. In a breech-loading fire-arm, the combination with the barrel thereof, having its butt end connected with vertical grooves, of a rigid combined part comprising a breech-block, a trigger, and a suspension arm, the said block being constructed to take into the said grooves in the butt-end of the barrel and to slide therein, the said arm extending forward and receiving a pivot on which the said part swings in a circular path, and the said trigger being constructed with a cock-notch which engages with a fixed retaining point located in front of it, substantially as described.

6. In a breech-loading fire-arm, the combination with the barrel thereof, having its butt end constructed with vertical grooves of a rigid combined part comprising a breech-block, a trigger, and a suspension arm, the said breech-block being constructed to take into the said grooves in the butt-end of the barrel and to slide therein, and furnished with a finger-piece and a firing-pin, the said arm extending forward and receiving the

5 pivot on which the said part swings, and has longitudinal movement, and the said trigger being constructed with a cock-notch which engages with a retaining-point located in front of the trigger; and a main spring connected with the said part for operating it in its upward movement, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM MASON.

Witnesses:

FRED C. EARLE,
LILLIAN D. KELSEY.