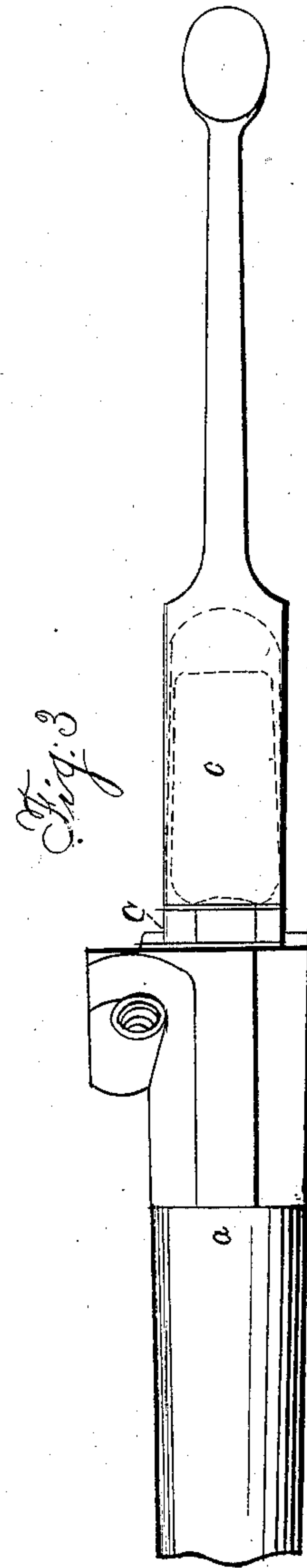
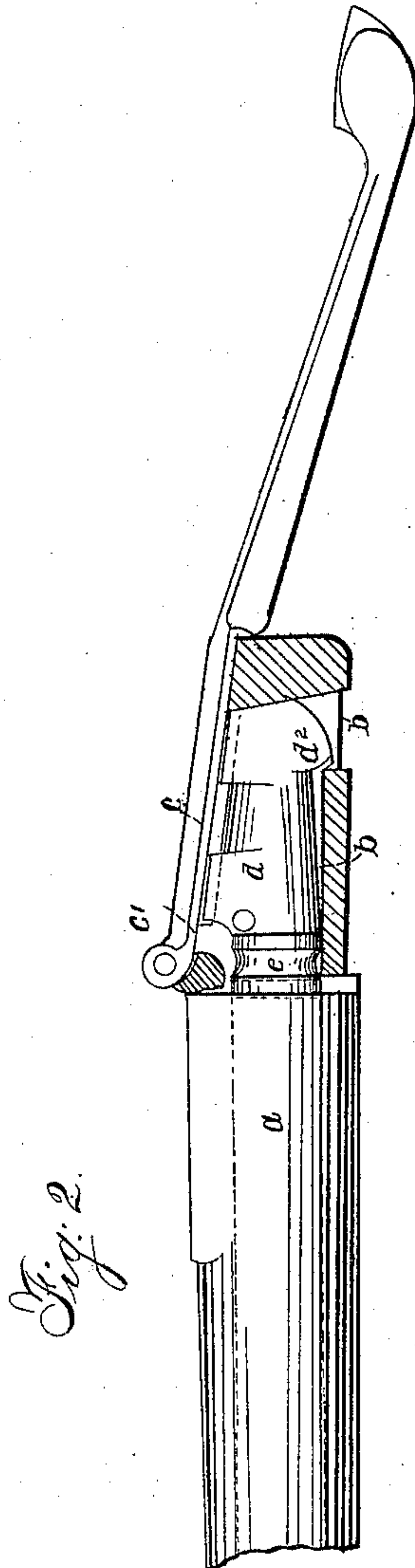
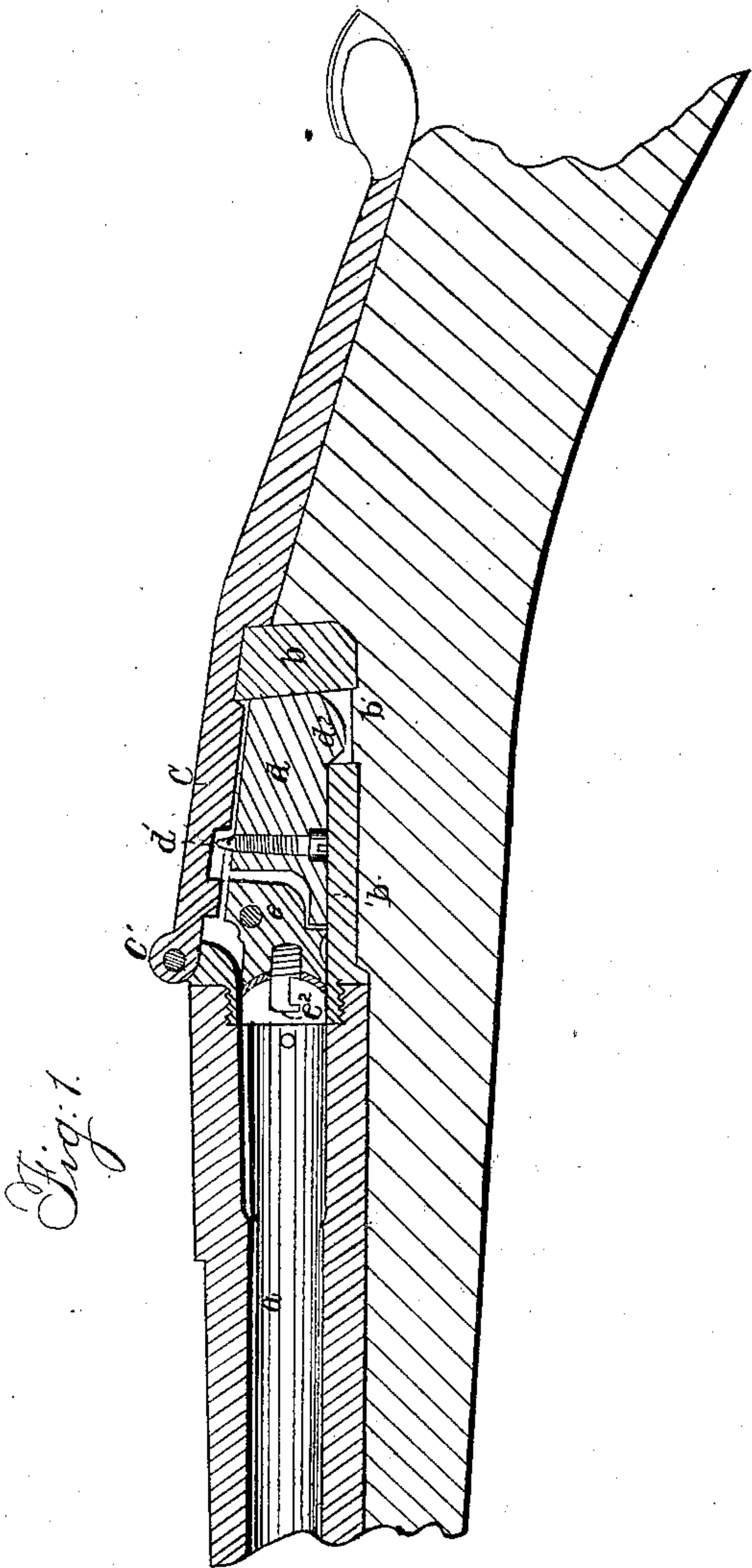


W. RICHARDS.
Breech-Loading Fire-Arm.

No. 39,246.

Patented July 14, 1863



Witnesses
Geo. Pitt
and Company

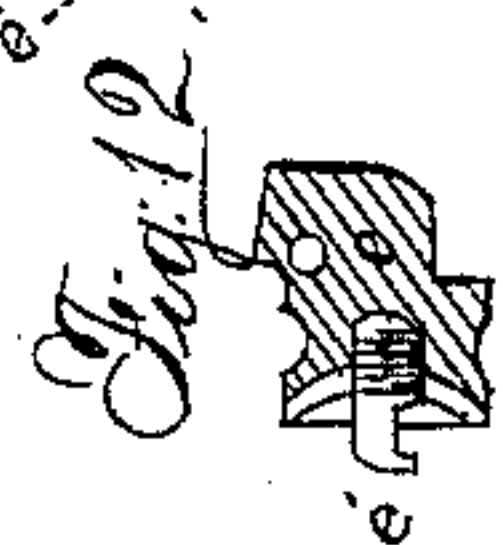
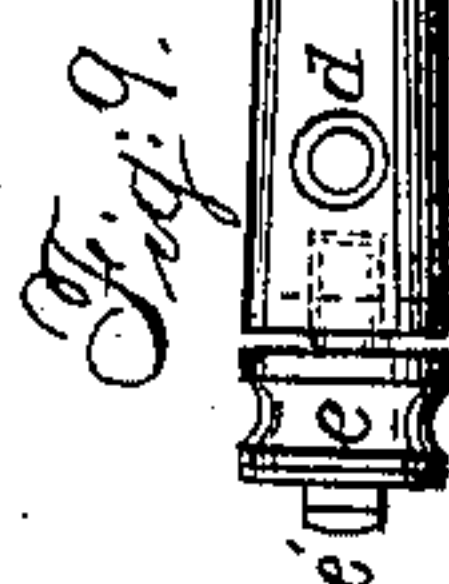
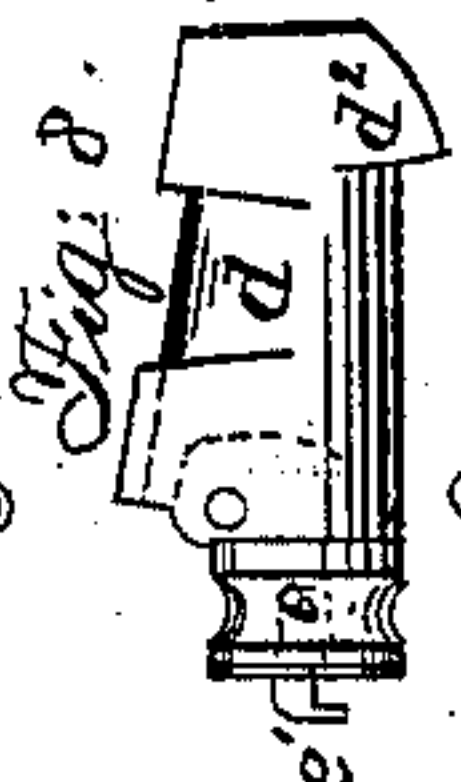
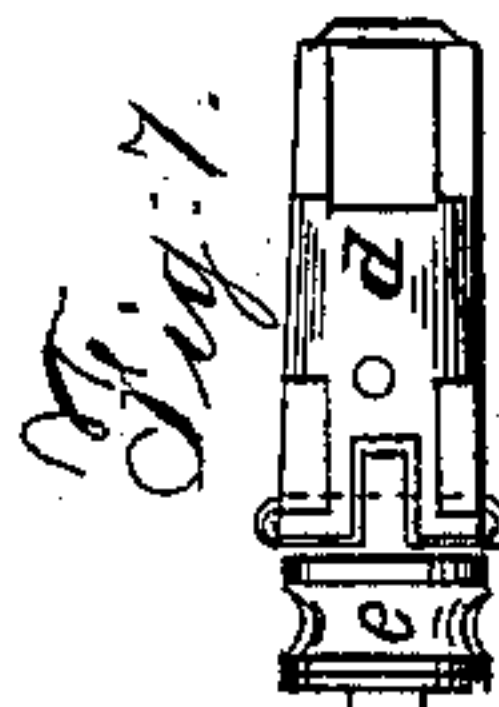
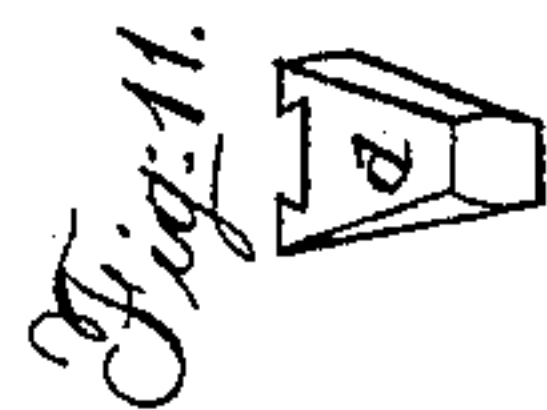
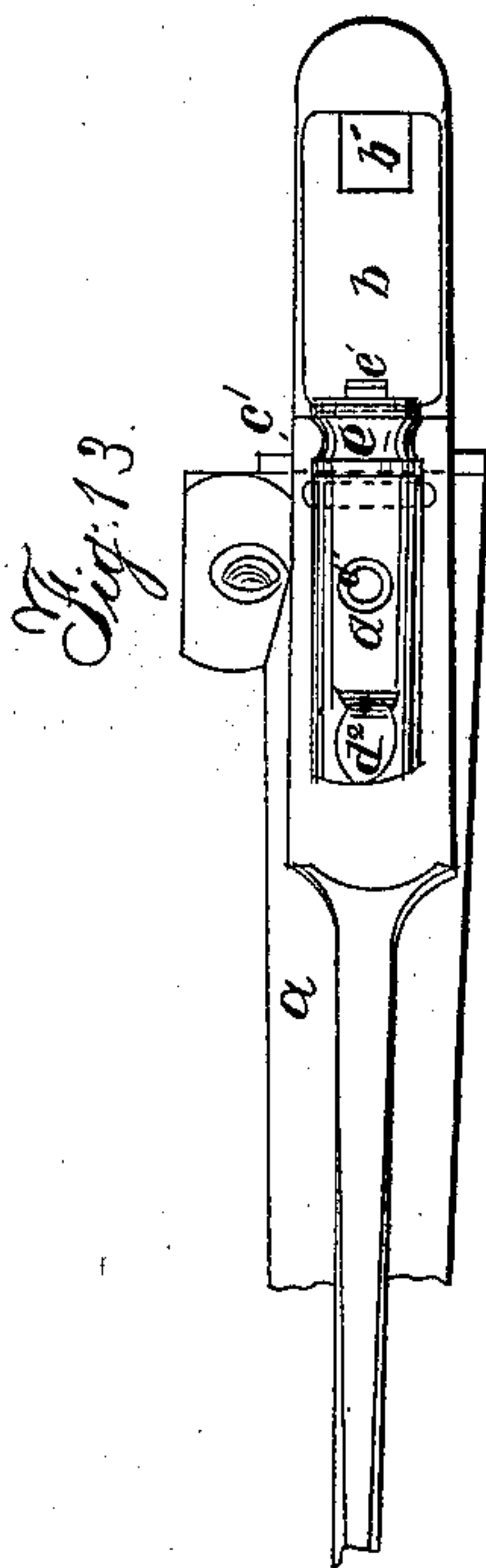
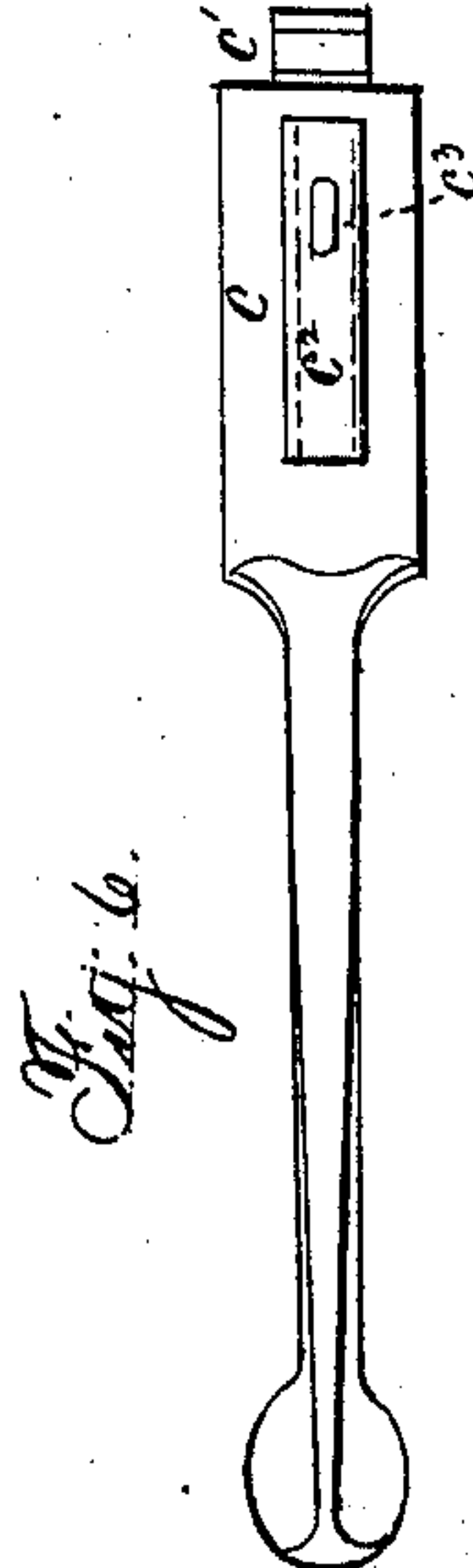
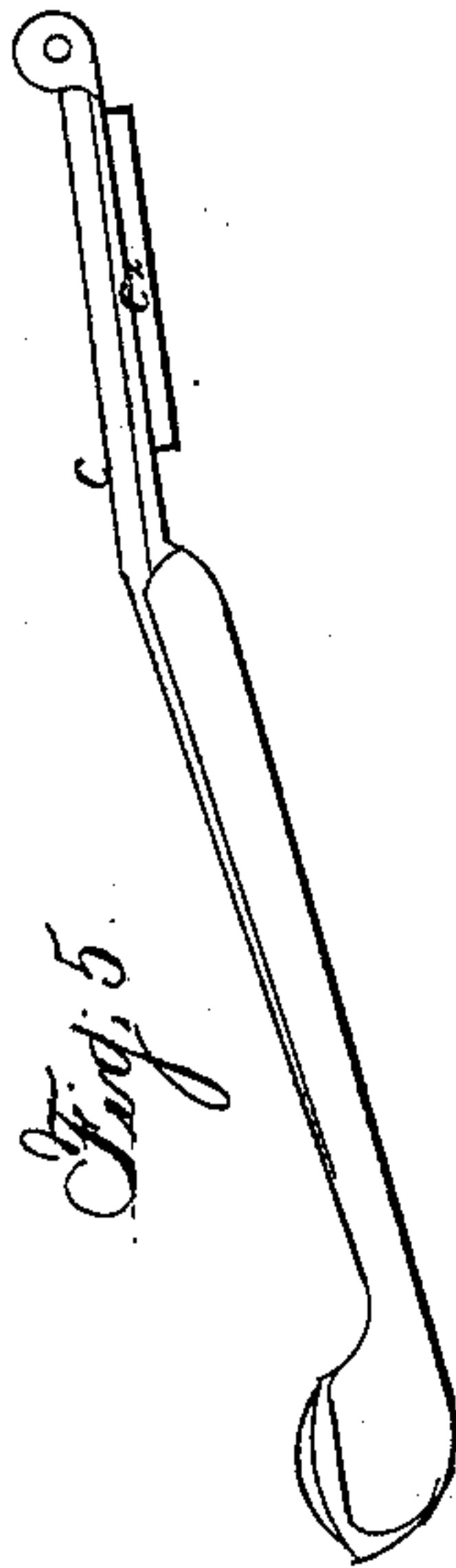
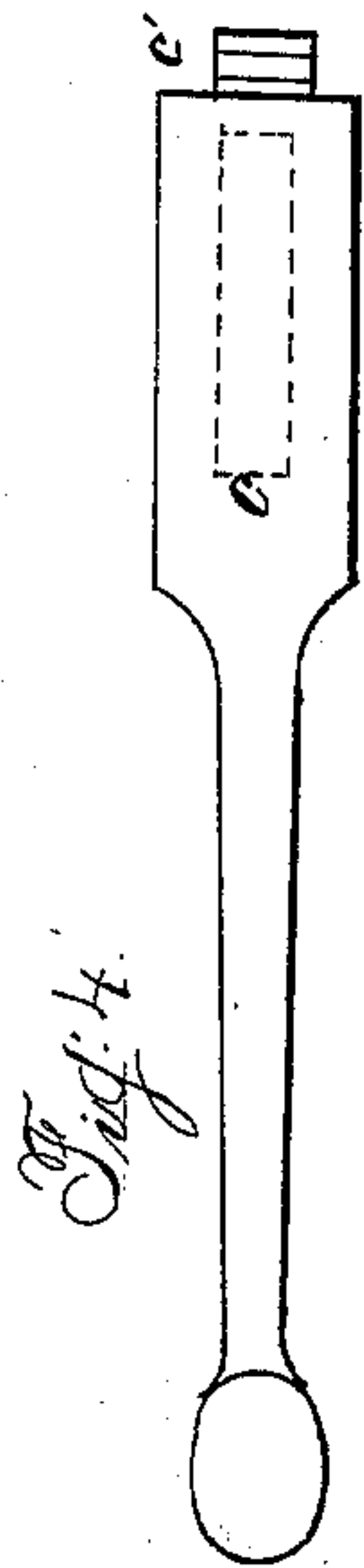
Westly Richards

W. RICHARDS

Breech-Loading Fire-Arm.

No. 39,246.

Patented July 14 1863.



Witnesses
for Atty
James Cooper

Wm. Richards

UNITED STATES PATENT OFFICE.

WESTLEY RICHARDS, OF BIRMINGHAM, ENGLAND.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 39,246, dated July 14, 1863.

To all whom it may concern:

Be it known that I, WESTLEY RICHARDS, of Birmingham, gun manufacturer, a subject of the Queen of Great Britain, have invented or discovered new and useful Improvements in Breech-Loading Guns and Fire-Arms; and I, the said WESTLEY RICHARDS, do hereby declare the nature of the said invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement thereof—that is to say:

This invention has for its object improvements in breech-loading guns and fire-arms. For these purposes a hollow box or chamber is formed or fixed to the breech end of the barrel, which breech end is made to receive a cylindrical plug. The interior of the box or chamber is made suitable for receiving a cartridge, and in such manner that when the cartridge has been introduced it may be slid out from the box or chamber in the end of the barrel. The plug used to close the breech end of the barrel is attached to a sliding block by a knuckle or other suitable joint, and this block slides along guides fixed longitudinally on the under side of the cover of the box or chamber; and it is preferred to use V-formed guides for the sliding block. The cover of the box or chamber is, in small military or sporting fire-arms, hinged to the fore end of such box, and has a handle which extends some distance beyond the back end of the box, and is received into a recess formed in the stock. The back end of the cover descends down beyond the end of the box, so as to prevent there being any flash in a backward direction should the plug fit imperfectly. The portion of the plug which enters the end of the barrel is made in any suitable manner to render its fit as correct as may be. The block to which the plug is attached is formed with a curved inclined end or otherwise, so that in coming against the end of the box when the cover is shut it may be forced forward, so as to cause the plug to enter the breech end of the barrel. A similar construction is applicable for cannon.

In order that my said invention may be most fully understood and readily carried into effect, I will proceed to describe the drawings hereunto annexed.

In the drawings, Figure 1 is a vertical section of part of a breech-loading gun constructed according to my invention. Fig. 2 is a side view, partly in section, and Fig. 3 is a plan of the same.

a is the breech end of the barrel, to which a box or chamber, *b*, is fixed. This box or chamber is open at the top, and is furnished with a cover, *c*, hinged to it at *c'*. A plan, a side view, and an under side view of the cover *c* with its handle are shown at Figs. 4, 5, and 6, respectively.

*c*² is a projection fixed or formed on the under side of the cover *c'*, and the sides of the projection *c*² form guides for the sliding block *d*, which has jointed to it the plug *e*, used for closing the breech end of the barrel.

Figs. 7, 8, 9, 10, and 11 show, respectively, a plan, a side view, an under side view, a front view, and a back view of the block *d* and the plug *e*, combined together; and Fig. 12 is a longitudinal section of the plug *e*. The motion of the block *d* on the cover *c* is limited by the screw *d'*, the end of which enters a groove, *c*³, formed in the projection *c*².

Fig. 13 shows in plan the position which the parts assume when the box or chamber *b* is open to receive a cartridge. To load the piece, the cartridge is introduced into this chamber, and is pushed forward by the finger into the breech end of the barrel, which is enlarged or chambered for the length of the cartridge, as shown by the drawings, so as to allow the cartridge to enter freely. When the cover *c* is again closed the operation of loading is complete. It will be seen that in closing the chamber *b* the plug *e* will, in consequence of the form given to it, the manner in which it is connected with the block *d*, and the manner in which this is connected with the cover *c*, freely enter the end of the barrel, and the block *d* will also freely enter the chamber *b*. When the box or chamber *b* is closed, the projection *d*² from the block *d* enters an aperture, *b'*, at the bottom of the chamber, and thus the block *d* becomes firmly fixed, so that it is unable to move in either direction; and when the piece is discharged the back-pressure of the explosion only presses the block more firmly against the end of the chamber, and from the inclined form of the end of the block and of the chamber it is impossible for it to be

forced out of its place. The plug *e* is kept tight by fixing at its end a disk of copper or soft metal covered, it may be, by another disk of platinum. *e'* is a hook fixed into the plug *e*. This I sometimes employ for the purpose of withdrawing the exploded cartridge when the chamber is opened. The cartridge employed has a disk of thick felt at the back, through which, at the center, a small hole is made, so as to fit the hook *e'*; and when the cartridge is put into the barrel and the chamber closed the hook enters the hole in the felt disk. In opening the chamber after the discharge of the piece the motion of the hook is such as to insure the withdrawal by it of the disk of felt with the paper of the cartridge attached to it. Should the plug *e* not fit the barrel with perfect accuracy, the form of the cover *c* is such as to prevent any flash passing back to annoy the user of the weapon.

I would remark in respect to the above, I make no claim to any of the mechanical parts separately, nor do I confine myself to the details; but

What I claim is—

The combination of the hinged cover and lever *c*, carrying the sliding block *d*, and its projection *d'*, and pivoted or yielding plug *e*, with the chamber *b* and its aperture *b'*, in the manner and for the purpose herein described and represented.

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