J. WURFFLEIN.

Breech-Loading Fire-Arm.

No. 7,334. Patented Apr. 30. 1850.

Fig: 3.

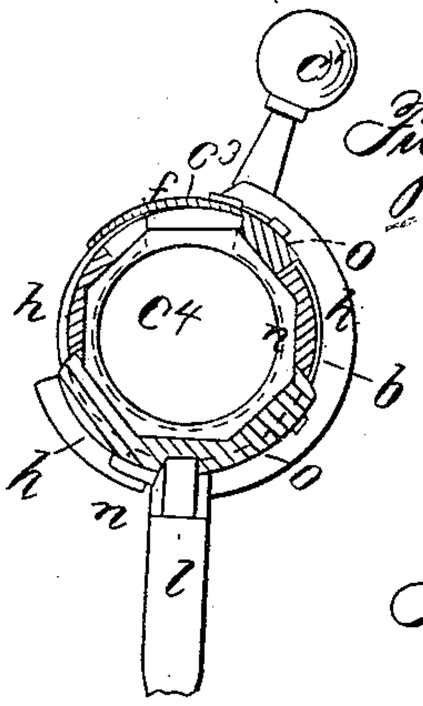



Fig: 4.

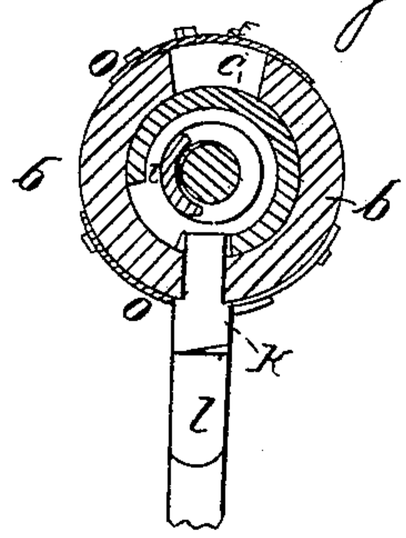



Fig: 1

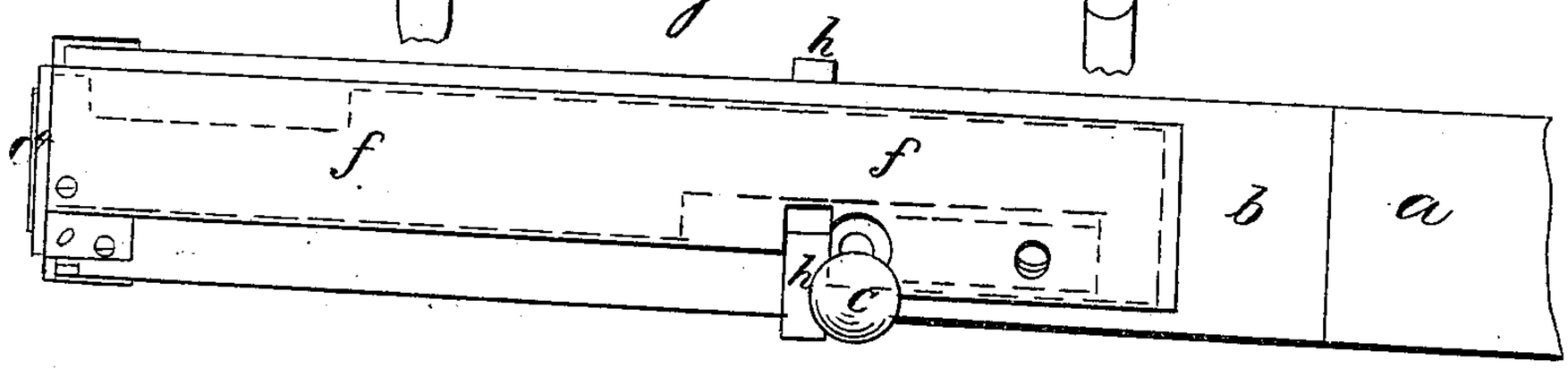
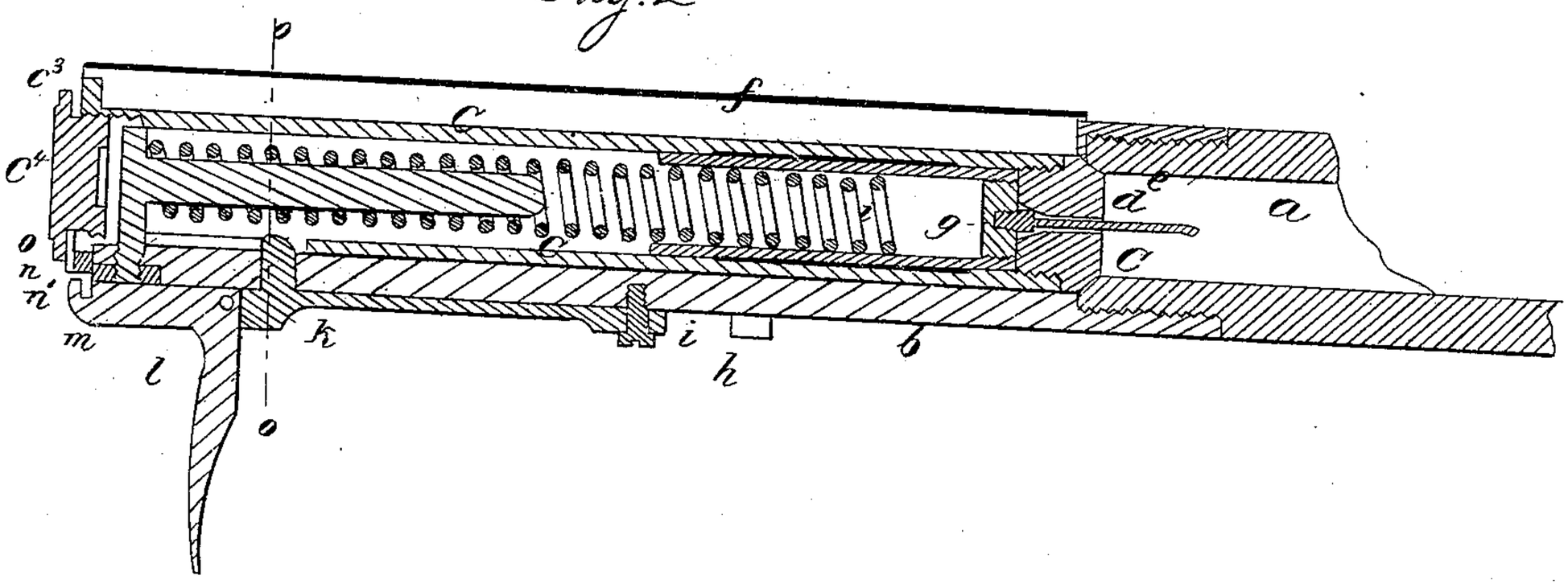



Fig: 2



# UNITED STATES PATENT OFFICE.

J. WUERFFLEIN. OF PHILADELPHIA, PENNSYLVANIA.

## METHOD OF PREVENTING ACCIDENTAL DISCHARGES IN THE PRUSSIAN GUN.

Specification forming part of Letters Patent No. **7,334**, dated April 30, 1850.

*To all whom it may concern:*

Be it known that I, J. WUERFFLEIN, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description of the principle or character which distinguishes them from all other things before known, and of the usual manner of making, modifying, and using the same, reference being had to the accompanying drawings, in which—

Figure 1 is a plan of the breech. Fig. 2 is a longitudinal section. Fig. 3 is an end view. Fig. 4 is a cross-section on line *o o* of Fig. 2.

My improvements consist in a cap over the openings formed in the breech and in the security-guard, to prevent the piece from being discharged when the parts are not in the proper position, and in the form and adaptation of the piston, which serves as a breech-pin and to ram home the charge.

The parts are constructed as follows: *a* is the lower end of the gun-barrel, to which an extension or breech, *b*, is screwed. This breech is furnished with a second cylinder, *c*, inside of it, that slides in and out within the outer one. The inner end of the inner one is furnished with a solid piston, *d*, the front edge of which is chamfered, so as to make it conical where it joins the lower end of the barrel at *e*, and a perfect joint is thus made. To the upper side of the cylinder *c* a handle, *c'*, is affixed, by which it is moved back and forth, said handle sliding in a groove cut in the breech *b*, and when the piston *d* is thrust forward into the position shown in the drawings it is turned to one side, and the handle is held by a bayonet-fastening, at which point there is a raised head, *h*, around the outer cylinder, *b*. The opening in the barrel is covered by a cap, *f*, that is attached to and moves with the inner cylinder, *c*. At the rear end of cylinder *c* there is a projection, $c^3$, and a cap, $c^4$, screws into it. Inside of the inner cylinder, *c*, the lock is located, and when the cylinder is drawn back to insert the charge the needle *g* is drawn back till the notch *i* in the piece to which it is affixed catches on a spring-catch, *k*, in doing which the spiral spring *i'* is bent, ready for discharging. All the parts above described, except the cap *f* and the form of the junction between the piston *d* and the end of the barrel, are well-known devices, and need no minute description. The trigger *l* is a bent lever, the angle of which is jointed to the spring-catch. At the rear end of the horizontal arm of this trigger there is a notch, *m*, in the side that rests against the barrel. Now, it will be perceived that by pulling on the lower arm of the trigger the rear end is moved forward as the catch is drawn out to discharge the piece; but it would be very dangerous if this discharge could take place except at the time when all the parts are in proper position; and, in fact, this danger has prevented the arm from coming into use. To obviate this difficulty, I attach a sliding guard, *n n'*, (see Fig. 3, where the slide is colored blue,) that is concentric with and turns on the end of the breech-piece *b*, being held to its place by cap-pieces *o o*. Upon the slide there is a projection, *n'*, that projects far enough to enter the notch *m* in the trigger and prevents its moving to discharge the gun. This slide extends round far enough to be struck by the projection $c^3$ when the handle is turned back, which pushes the projection *n'* into the notch in the trigger. When the handle is again returned to its place, the opposite side of the projection $c^3$ strikes the other end of the slide and carries back the projection *n'* out of the notch in the trigger, leaving it free to be discharged. A perfect protection is thus afforded to prevent accidental discharges. Should the guard be turned when the cylinder is out, it cannot be returned till the guard is again in proper place, so that the needle is prevented from striking the charge should the lock go off accidentally.

Having thus fully described my improved fire-arm, what I claim therein as new, and for which I desire to secure Letters Patent, is—

The guard *n'*, to prevent the discharge of the arm when all the parts are not in proper position, constructed, combined, and arranged with the arm, and operated substantially in the manner and for the purpose set forth.

JOHN WUERFFLEIN.

Witnesses:
J. J. GREENOUGH,
ANDREW GROSS.