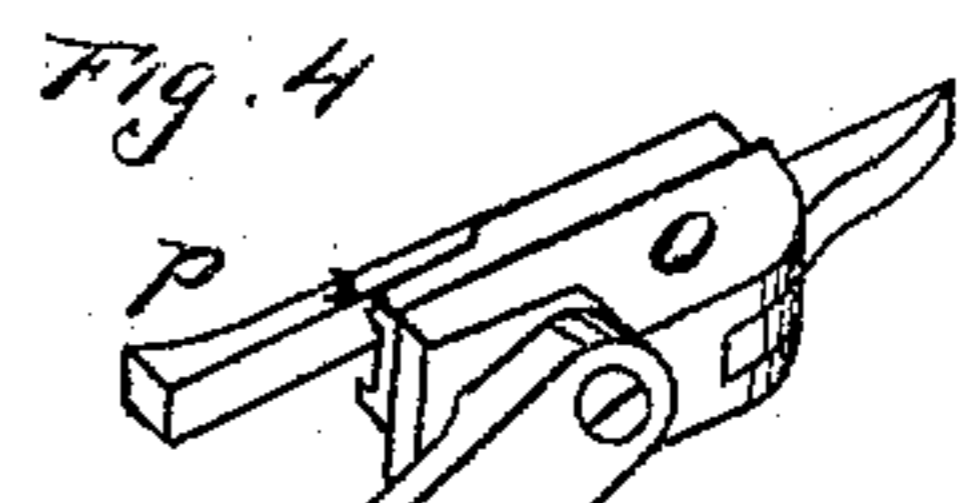
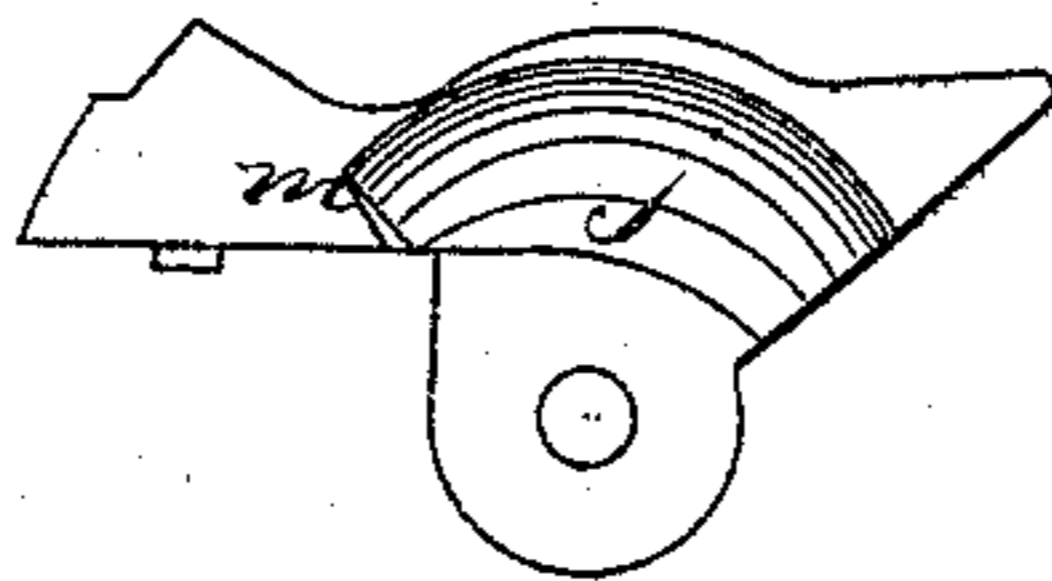
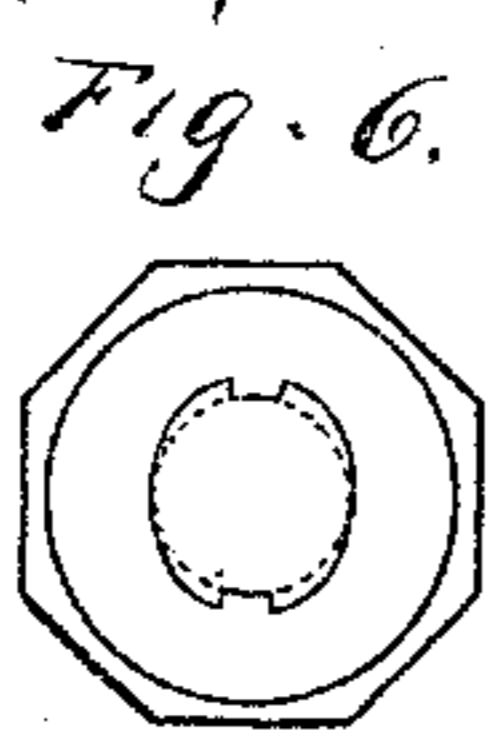
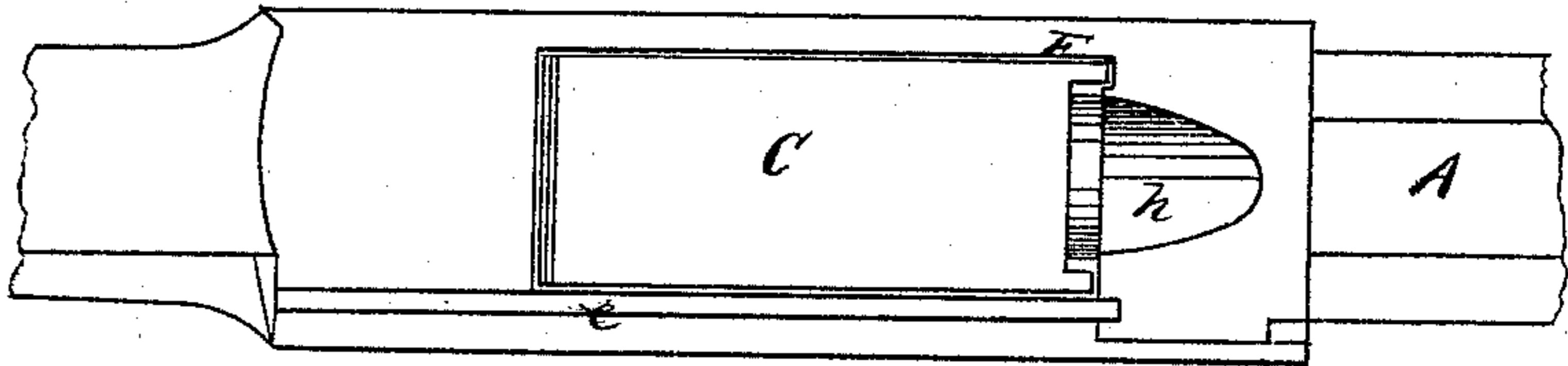
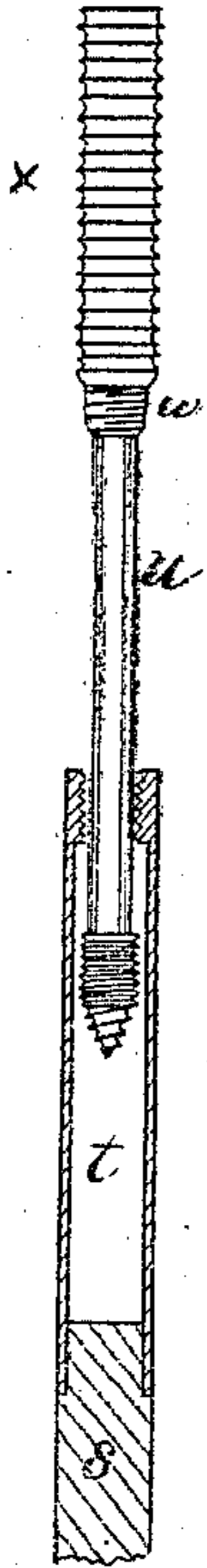
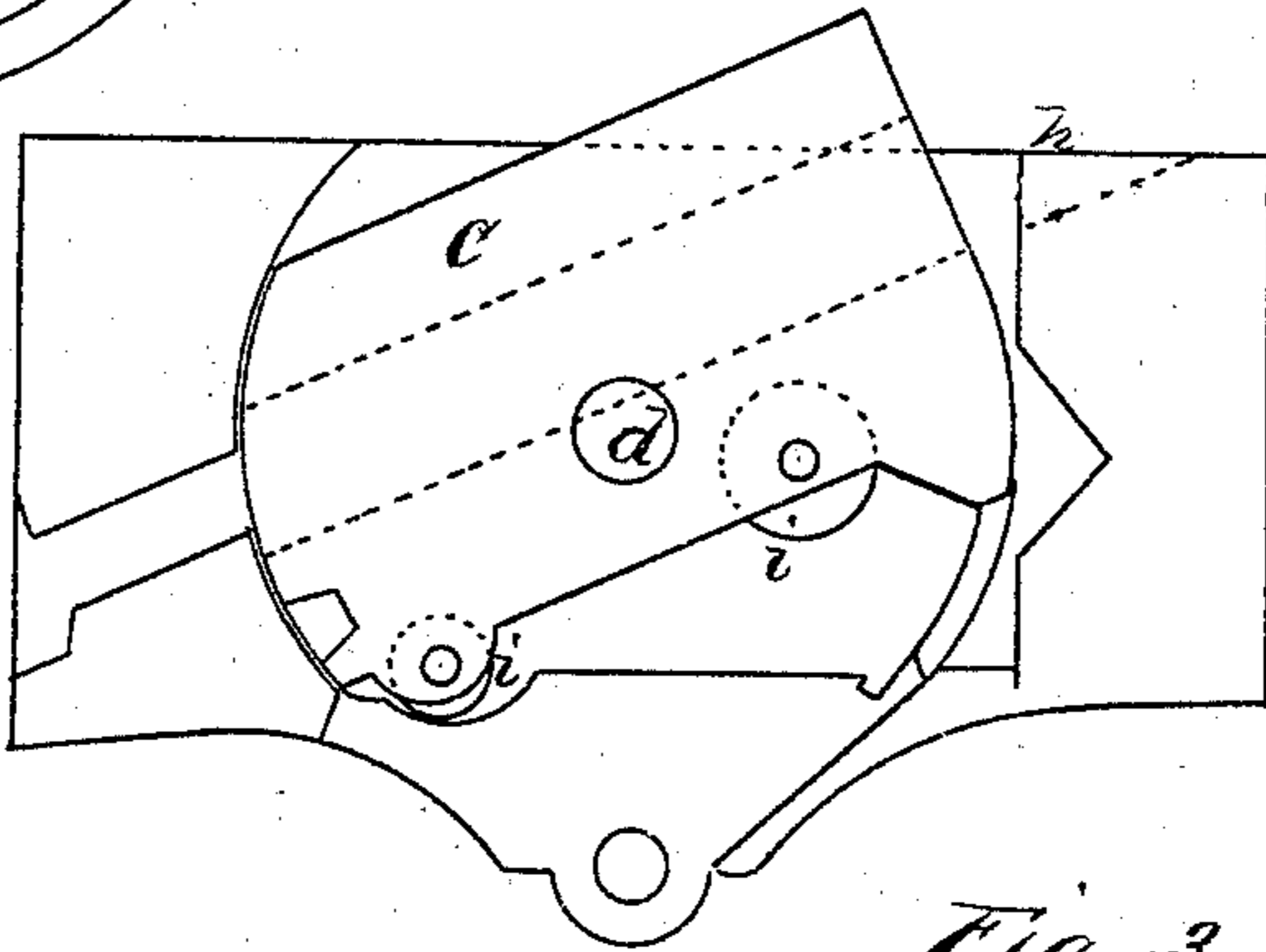
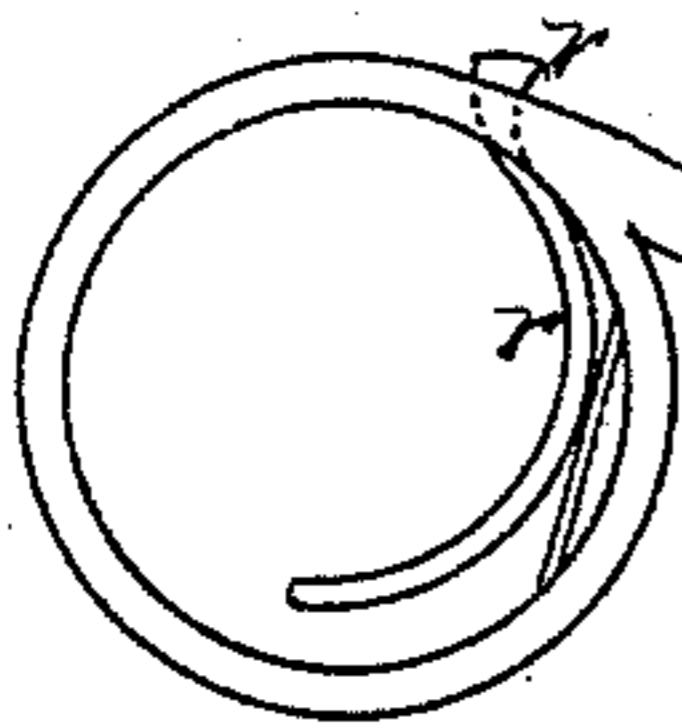
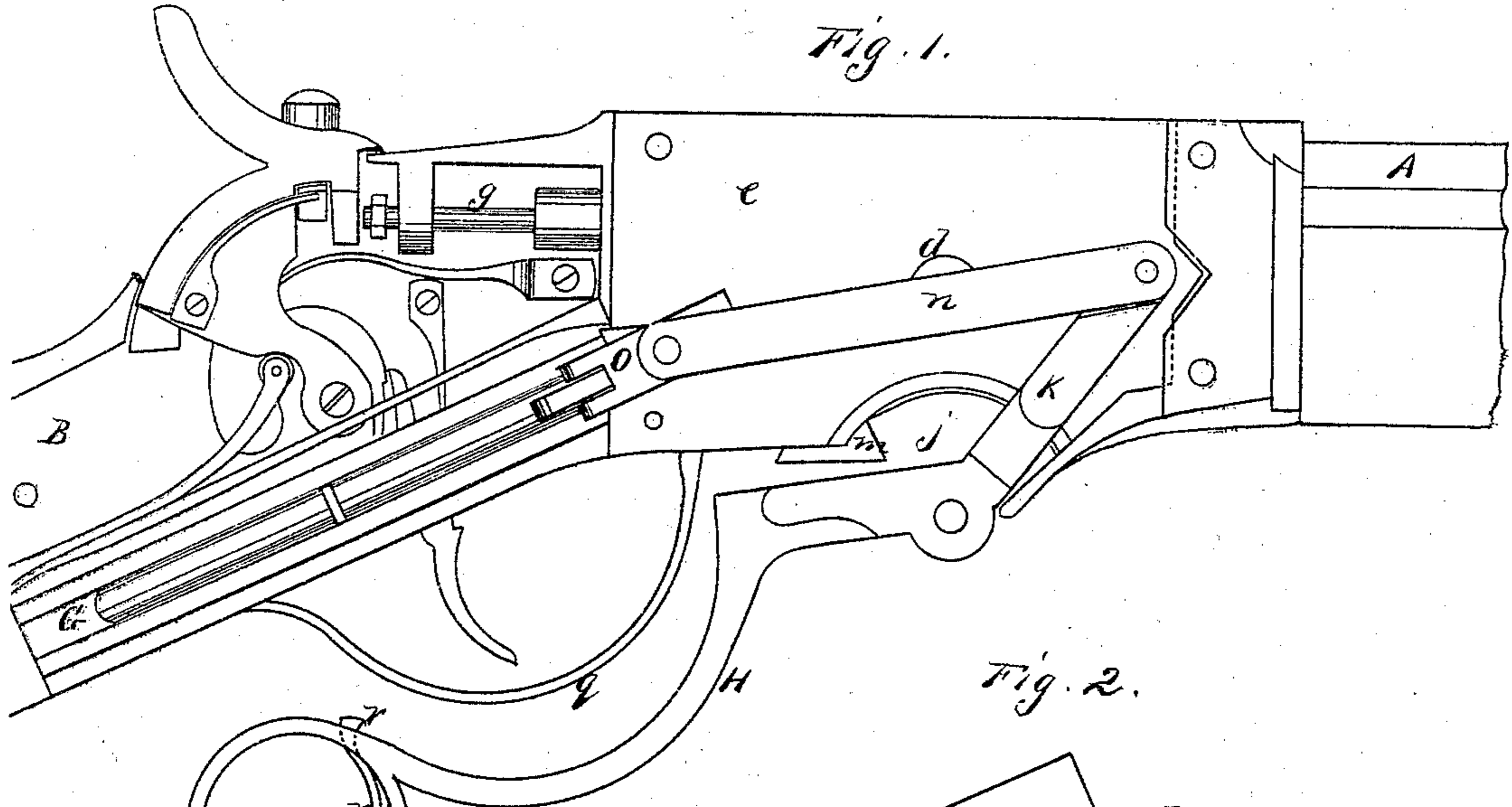


A. SWINGLE & F. A. HUNTINGTON.  
Magazine Fire-Arms.

No. 135,947.

Patented Feb. 18, 1873.



Witnesses

*J. L. Stone*  
*C. F. Richardson*

Inventors

*Alfred Swingle*  
*Frank A. Huntington*  
per *Dewey & Co.*  
*attys*

# UNITED STATES PATENT OFFICE.

ALFRED SWINGLE AND FRANK A. HUNTINGTON, OF SAN FRANCISCO,  
CALIFORNIA.

## IMPROVEMENT IN MAGAZINE FIRE-ARMS.

Specification forming part of Letters Patent No. 135,947, dated February 18, 1873.

*To all whom it may concern:*

Be it known that we, ALFRED SWINGLE and FRANK A. HUNTINGTON, of San Francisco city and county, State of California, have invented Improvements in Repeating Fire-Arms; and we do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use our said invention or improvement without further invention or experiment.

Our invention relates to a novel construction and arrangement of the breech-piece and magazine of that class of small-arms known as repeaters, by which the shell of the discharged cartridge is automatically removed and a loaded cartridge substituted for it by a single movement back and forth of the trigger-guard. The magazine or tube which contains the loaded cartridges we place in the stock of the gun. The breech-piece we hang upon trunnions so that it can be oscillated, by means of the trigger-guard, into line with the magazine so as to receive a fresh cartridge, and in this act be relieved of the shell of the exploded cartridge.

In order to more fully illustrate and explain our invention, reference is had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a side view with the outer plate removed. Fig. 2 shows the rotating breech-piece. Fig. 3 is a top view. Fig. 4 is a perspective view of the device for moving the cartridges into the breech-piece, the slide being turned forward to show it more clearly. Fig. 5 is a detailed view to be referred to.

A represents the barrel, and B the stock, of the gun. The breech-piece C is provided with an arm or journal, *d*, upon each side, which serve as trunnions for it to oscillate upon when secured in place. The rear end of the barrel is chambered out at F upon one side of the breech sufficiently large to receive the breech-piece C, as shown, so that one of its trunnions will bear in the metal which is left on one side. A steel plate, *e*, which is provided with a hole in the proper place to receive the opposite arm or trunnion *d*, is then secured upon the opposite side either in a mortise or by means of screws or other suitable device, thus confining

the breech-piece between the two pieces of metal. The rear end of the chamber F is made circular, and also the lower corner of the forward end. The breech-piece C is made to correspond in shape with the chamber, so that when it oscillates a close fit is preserved. The magazine-tube G is placed in the stock of the gun lying in a straight line from the lower rear corner of the stock to the chamber F, with which it communicates below the firing-pin *g*. Now, it will be seen that when the breech-piece C lies horizontally in the chamber F its bore will communicate with the bore of the barrel A while the firing-pin covers the bore in its rear, but by oscillating the breech-piece so as to depress its rear end its bore will be brought in line with the magazine-tube, while its forward end is so elevated as to permit the discharged shell to be forced out by the entering cartridge. Usually an inclined groove, *h*, will have to be made at the end of the chamber in advance of the bore in the breech-piece when in this position in order to permit the discharged shell to pass out. On the under side of the breech-piece we secure two friction-rollers *i i*—one near the front and one near the rear end. Just below the breech-piece a horizontal bar or lever, *j*, is secured next to the false trigger-guard H, by the same screw which secures this trigger-guard to the gun. The upper face of this bar is formed into one or more curves to accommodate the rollers *i i*, which bear upon it. The lever-arm K of the trigger-guard H passes upon one side of the bar *j*; and in order to allow it to move back when the false trigger-guard is thrown forward the edge of the bar is beveled off in a curved line below the lever-arm, so as to let the arm move back freely almost to its full stroke. At this point the arm will strike the shoulder *m* at the rear of the bevel, when a further motion causes the lever-bar *j* to oscillate sufficiently to carry the breech-piece to its loading position in line with the magazine-tube. A plate or connecting-rod, *n*, has one end loosely secured to the extremity of the lever-arm K; and to its opposite extremity a slide, *o*, is attached. This slide moves back and forth along ways above the upper end of the magazine-tube as the trigger-guard is thrown forward and back, and has a claw-bar,

*p*, secured to it, which, as the false trigger-guard moves back catches in a recess and over a shoulder on the rear of the upper cartridge in the tube and forces it forward into the bore of the breech-piece, causing it to drive the shell of the discharged cartridge out at the upper end of the breech-piece. A further closing of the false trigger-guard brings the breech-piece to a horizontal or firing position and enters the upper wedge-shaped end of the slide into a corresponding recess in the lower corner of the breech-piece, by which the breech-piece is keyed to its position. The spring in the bottom of the magazine-tube keeps the cartridges close up against the breech-piece in the ordinary manner of magazine-guns.

In order to fill the magazine, the breech-piece is oscillated to the proper position to bring its bore in line with the magazine-tube, and the cartridges are forced through the breech-piece until the tube is full. The real trigger-guard *q* is permanently fixed to the gun, and the false guard *H* fastens to it when closed by means of a spring-latch *r*, which is operated by the finger and which engages with a hole in the guard *q*, thus securely fastening the operating-guard when not required for use.

Having thus described our invention, what

we claim, and desire to secure by Letters Patent, is—

1. The breech-piece *C*, with its arms or trunnions *d*, in combination with the oscillating bar or lever *j* and trigger-guard *H*, substantially as and for the purpose described.

2. The oscillating breech-piece *C*, in combination with the magazine-tube *G*, when arranged substantially as described, whereby the cartridges may be fed directly into the breech-block and at the same time the old cartridge forced out.

3. The oscillating breech-piece *C*, magazine-tube *G*, bar or lever *j*, and trigger-guard *H* with its lever-arm *K*, connecting-rod *n*, and slide *o* having the claw-bar *p*, all constructed and arranged to operate substantially as herein described.

4. The slide *o*, with its upper wedge-shaped end, in combination with the recess *x* in the breech-piece for locking the breech-piece in the firing position.

In witness whereof we hereunto set our hands and seals.

ALFRED SWINGLE. [L. S.]  
FRANK A. HUNTINGTON. [L. S.]

Witnesses:

J. L. BOONE,  
C. M. RICHARDSON.