

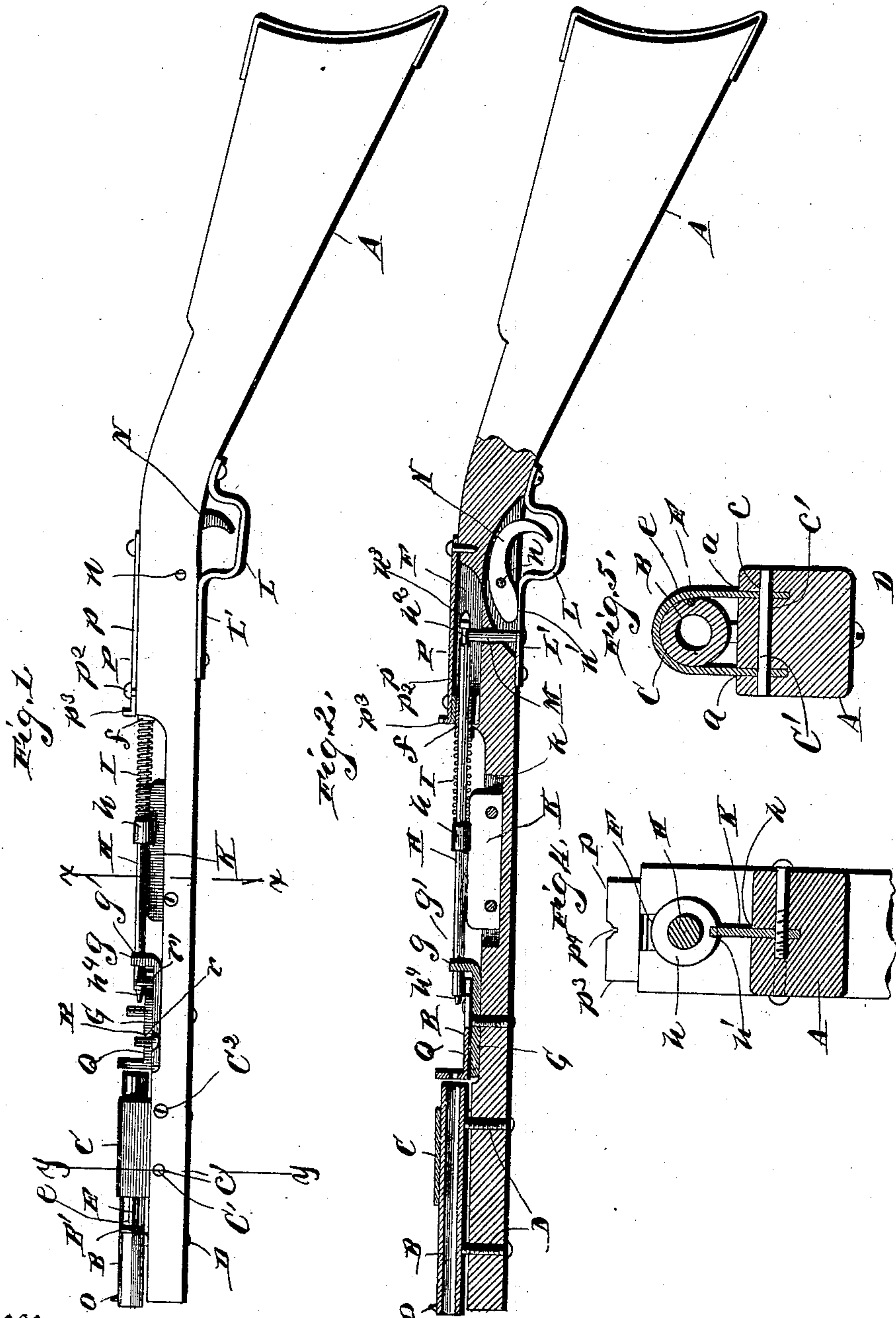
(No Model.)

2 Sheets—Sheet 1.

W. C. MAYNARD.  
BREECH LOADING GUN.

No. 398,065.

Patented Feb. 19, 1889.



Witnesses.  
*O. S. Taylor.*  
*A. Doyle.*

Inventor.  
*William C. Maynard.*  
By his Attorneys  
*Chas. H. & Co.*

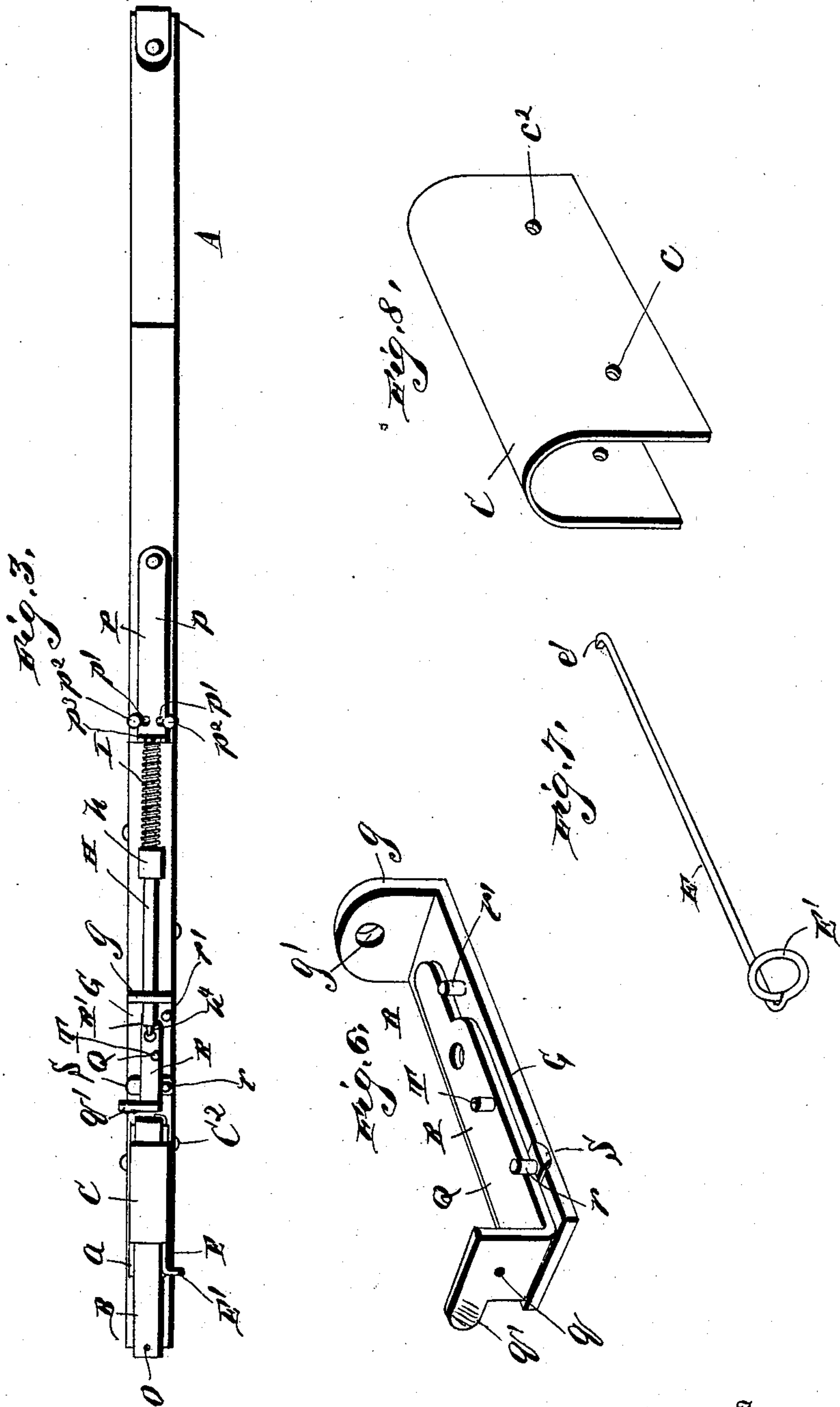
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*C. H. Snow & Co*



# UNITED STATES PATENT OFFICE.

WILLIAM C. MAYNARD, OF MOUNT PLEASANT, MICHIGAN.

## BREECH-LOADING GUN.

SPECIFICATION forming part of Letters Patent No. 398,065, dated February 19, 1889.

Application filed August 1, 1888. Serial No. 281,659. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM C. MAYNARD, a citizen of the United States, residing at Mount Pleasant, in the county of Isabella and State of Michigan, have invented new and useful Improvements in Rifles, of which the following is a specification.

The object of my invention is to provide a simple, reliable, and effective cheap rifle, which is so constructed as to guard against premature discharge and other accidents liable to occur in the use of cheap fire-arms.

With these objects in view the invention consists in a certain novel construction and arrangement of devices, fully set forth hereinafter in connection with the accompanying drawings, and specifically pointed out in the appended claims.

In the drawings, Figure 1 is a side view of the rifle embodying my improvements. Fig. 2 is a longitudinal central sectional view of the same. Fig. 3 is a plan view of the same. Fig. 4 is a detail sectional view on the line  $x x$  of Fig. 1, to show the manner in which the knob or handle of the firing-rod is guided in the guiding-web. Fig. 5 is a detail sectional view on the line  $y y$  on Fig. 1, to show the securing-clasp for the barrel and the manner of attaching the same to the stock. Fig. 6 is a detail perspective view of the breech-guard. Fig. 7 is a similar view of the shell-extractor. Fig. 8 is a similar view of the clasp or sleeve for the barrel.

Referring by letter to the drawings, A designates the stock of the rifle, to the outer or front end of which is secured a short barrel, B, having an open breech, in which is adapted to be inserted a small cartridge of any ordinary kind, and the said barrel is affixed to the stock in this manner:

C designates a clasp or sleeve which passes over the barrel and is inserted at its edges in parallel grooves  $a a$  in the stock, and in the opposite sides of the said clasp or sleeve, near its front end, are formed aligned apertures  $c c$ , which register with apertures  $c' c'$  in the stock. A transverse pin,  $C'$ , engages the said registering apertures, and screws or bolts  $C^2$  engage apertures  $c^2 c^2$  near the rear end of the clasp or sleeve, thereby firmly securing the same in place. Adjusting-screws D D are arranged vertically, and bear at their ends

against the barrel, whereby it is held firmly clamped in the clasp or sleeve C.

A shell-extractor, E, consisting of a wire rod, slides in a groove,  $e$ , in the side of the barrel, and is provided at its front end with a handle,  $E'$ , and at its rear end with a stud,  $e'$ , which fits in a notch in the breech of the barrel, flush with the said breech. When a cartridge is inserted in the breech, its flange bears against the said stud, and after it is discharged the shell is extracted by sliding the rod toward the rear.

The stock is provided near its rear end with a longitudinal slot or groove, F, having a metallic sleeve or bearing,  $f$ , at its front end; and G represents a plate which is secured to the upper side of the stock close to the rear end of the barrel, and its rear end is turned up to form a bracket,  $g$ , in which is formed a bearing,  $g'$ , registering with the bearing  $f$ . In these registering bearings is mounted the firing-rod H, having a knob or handle,  $h$ , between the bearings, and between the bearing or sleeve  $f$  and the said knob is arranged a coiled spring, I, which forces the rod forward. The lower side of the knob or handle  $h$  is provided with a notch,  $h'$ , which fits and slides on a guiding-web, K, arranged in a longitudinal groove,  $k$ , in the stock. The rear end of the firing-rod operates in the groove or slot F in the stock, and is provided with an annular groove,  $h^2$ , and a tapered extremity,  $h^3$ .

L designates the trigger-guard, secured at its rear end to the stock and provided at its front end with an extension or spring arm,  $L'$ , which is secured at its front end to the stock, and is adapted to be depressed or drawn away from the stock at its rear or free end. The engaging-pin M is headed at its lower end in an aperture near the rear end of the said extension or arm, and is adapted to engage at its upper end in the groove  $h^2$  in the rear end of the firing-rod when the latter is drawn back against the strength of the spring. This engaging-pin is normally held raised by the spring force of the extension or arm  $L'$ . When the firing-rod is drawn back, its tapered end slides on and depresses the pin, after which the latter engages the groove  $h^2$ . The trigger N is mounted on a transverse pivot,  $n$ , and is provided with an arm,  $n'$ , the rounded extremity of which bears on the upper side



of the free end of the extension or arm  $L'$ , whereby when the trigger is drawn to the rear the said arm  $n'$  bears on and depresses the spring extension or arm, thereby drawing the engaging-pin out of engagement with the firing-rod and releasing the same.

The front sight,  $O$ , of this rifle is secured on the front end of the barrel, and the rear sight,  $P$ , consists of a long plate,  $p$ , pivoted at its rear end to the stock and provided near its front end, on opposite sides, with the notches or transverse slots  $p' p'$ , which engage set-screws  $p^2 p^2$  on opposite sides of the plate. When the said screws are loosened, the front end of the plate may be moved laterally; but when the screws are tightened their heads bear on the plate and clamp it firmly in place. The front extremity of the plate is turned up to form a flange,  $p^3$ , in the center of which is formed a V-shaped notch,  $p^4$ . It will be seen from the above description that the rear sight is laterally adjustable.

The breech-guard  $Q$  is formed on the end of a plate,  $R$ , which is pivoted at its rear end on the plate  $G$ , thereby enabling the said guard to be moved laterally to expose the breech and permit the insertion of a cartridge. When the guard is in its proper position, the front end of the pivoted plate bears against a vertical stud,  $r$ , on the plate  $G$ , and when the said guard is drawn away from the breech a tail or projection,  $R'$ , on the rear end of the plate strikes against a stud,  $r'$ , on the plate  $G$ . The guard is provided with an aperture,  $q$ , which aligns with the bore of the barrel, and the front end of the firing-rod is provided with a firing-pin,  $h^4$ , which passes through the said aperture and strikes the cartridge. The side of the guard is provided with a roughened ear,  $q'$ , to enable the guard to be operated. A transverse friction-spring,  $S$ , is arranged on the plate  $G$ , under the front end of the pivoted plate  $R$ , to hold the guard firmly in either the closed or open position.

When the breech is open and a cartridge is being inserted, there is danger of the firing-rod becoming jarred loose or otherwise disengaged and exploding the cartridge prematurely, thereby endangering the operator. To guard against this accident, I arrange a safety-pin,  $T$ , on the pivoted plate in such a position that when the breech is open (that is, the guard is drawn to one side to insert the cartridge) this pin will be in the direct line of the movement of the firing-rod, so that if the latter is released its front end will strike against the safety-pin and there stop. The front end of the firing-rod cannot pass the safety-pin until the breech-guard is in its normal position.

Having thus described my invention, I claim—

1. In a rifle, the combination, with the stock, of the barrel arranged thereon, the clasp or sleeve passing over the barrel and secured at its edges in the stock, and the set-screws pass-

ing vertically up through the stock and bearing against the lower side of the barrel to clamp it firmly in the clasp or sleeve, substantially as and for the purpose specified.

2. In a rifle, the combination of the stock, with the barrel, the clasp or sleeve  $C$ , passing over the barrel and inserted at its edges in parallel grooves in the stock, the transverse pin passing through registering apertures in the stock and the front end of the clasp or sleeve, the screws engaging apertures in the rear ends of the clasp or sleeve, and the set-screws bearing against the under side of the barrel at its front and rear ends, respectively, to hold the same firmly clamped in the clasp or sleeve, substantially as specified.

3. In a rifle, the combination, with the stock, the barrel thereon, and the spring-actuated firing-rod provided with a groove,  $h^2$ , of the trigger-guard provided with an extension or arm,  $L'$ , the engaging-pin connected to the free end of the said extension or arm and adapted to normally engage the groove  $h^2$  in the firing-rod, and the trigger provided with an arm,  $n'$ , bearing on the said extension or arm and adapted when operated to depress the same and release the firing-rod, substantially as specified.

4. In a rifle, the combination, with the barrel having an open breech, of the firing-rod provided with an actuating-spring, and a knob or handle,  $h$ , on the rod provided with a notch operating on a guiding-web,  $K$ , substantially as specified.

5. In a rifle, the combination, with the stock having the bearings  $f$  and  $g'$ , of the firing-rod mounted in the said bearings and provided with the knob or handle  $h$ , the spring coiled on the firing-rod between the bearing  $f$  and the knob or handle, and the guiding-web attached to the stock under the firing-rod and fitting at its upper edge in a notch in the under side of the said knob or handle, substantially as and for the purpose specified.

6. In a rifle, the combination, with the breech-guard covering the breech of the barrel and the firing-rod, of the safety-pin connected to the breech-guard and adapted when the breech is opened to assume a position between the breech and the end of the firing-rod, substantially as specified.

7. In a rifle, the combination, with the barrel and the firing-rod, of the breech-guard adapted to close the breech of the barrel, and having a pivoted plate,  $R$ , provided with a vertical safety-pin,  $T$ , adapted to assume a position between the firing-rod and the breech when the guard is removed from the breech, substantially as and for the purpose specified.

8. In a rifle, the combination, with a barrel having an open breech, of the breech-guard having a pivoted plate,  $R$ , adapted to cover the breech of the barrel, and a friction-spring located under the said pivot-plate to



hold the guard from accidental movement, substantially as specified.

5 9. In a rifle, the combination, with the breech-guard having a pivoted plate, R, provided with a safety-pin, T, of the stud  $r$ , arranged in the path of the front end of the plate and adapted to stop the same when the breech is closed, and the tail or projection on the rear end of the plate adapted to strike

a stud,  $r'$ , when the breech is open, substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM C. MAYNARD.

Witnesses:

ALBERT A. LOVELAND,  
JAMES L. PURDY.