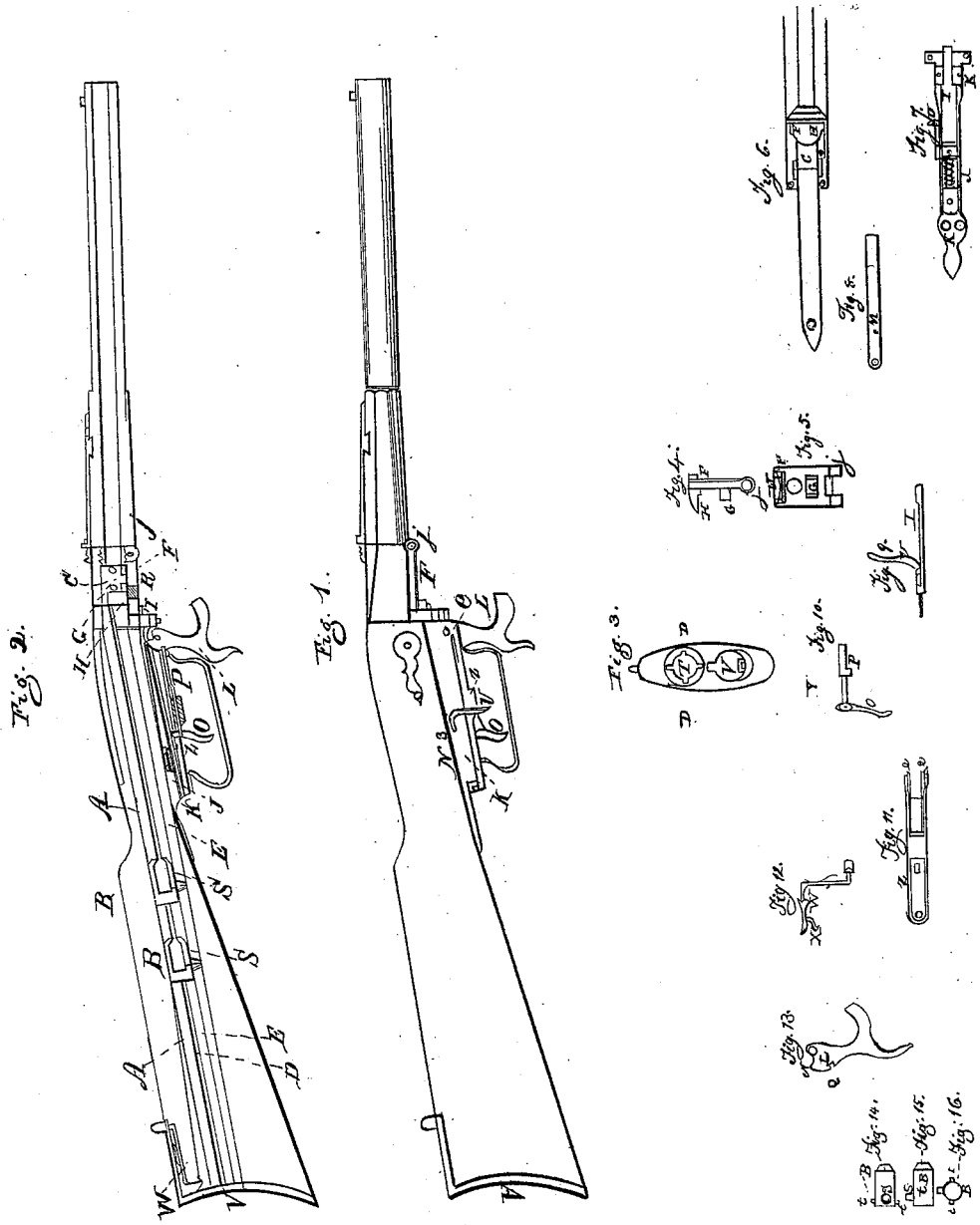
BAILEY, RIPLEY & SMITH.

Magazine Gun.

No. 1,084. Patented Feb. 20, 1839.



UNITED STATES PATENT OFFICE.

L. BAILEY, OF PORTLAND, MAINE, AND J. B. RIPLEY, OF CLAREMONT, AND WM. B. SMITH, OF CORNISH, NEW HAMPSHIRE.

IMPROVEMENT IN FIRE-ARMS.

Specification forming part of Letters Patent No. **1,084**, dated February 20, 1839; antedated November 6, 1838.

To all whom it may concern:

Be it known that we, LEBBEUS BAILEY, of Portland, Cumberland county, Maine, JOHN B. RIPLEY, of Claremont, and WILLIAM B. SMITH, of Cornish, in the county of Sullivan and State of New Hampshire, have invented a new and useful Improvement in Fire-Arms, called the "Water-Proof Rifle," which is described as follows, reference being had to the annexed drawings of the same, making part of this specification:

The nature of our improvement consists in having connected with its loading department a cylindrical conducting-tube, a sliding chamber, and a receiving-chamber.

Figure 1 in the annexed drawings is a side view of the gun; and Fig. 2, a longitudinal section through the barrel, cylindrical conducting-tube, sliding chamber, and receiving-chamber. The other figures will be referred to in their appropriate place.

The cylindrical conducting-tube, A, Fig. 2, consists of a round passage passing through the stock to the receiving-chamber C, having side grooves, D D, of sufficient size and depth to allow the trunnions, which act as guides to the sliding chamber B, to pass freely along them, and having on the lower side a channel, E, sufficiently large to allow the cone on the sliding chamber to pass freely along it. The length of the cylindrical conducting-tube is sufficient to contain at one time about fifteen sliding chambers, each charged with powder and ball or powder and shot, as wished.

The sliding chamber is a cylinder of sufficient length to contain a charge of powder and ball or powder and shot, as the case may be, and of sufficient strength to sustain its discharge. It acts entirely as a detached chamber. The muzzle of the sliding chamber is beveled, so as to enter a corresponding countersink in the barrel, which serves to keep it in its place, and also secures a perfect entry of the charge into the barrel of the gun when fired. At the breech of the sliding chamber there are two trunnions, *t t*, Figs. 14, 15, 16, projecting at right angles from the cone. These trunnions act as guides to the sliding chamber in its passage through the cylindrical conducting-tube to the receiving chamber, and to place it in its proper position in said chamber.

The receiving-chamber C, Fig. 2, is a box into which the sliding chamber enters after leaving the cylindrical conducting-tube A. This receiving-chamber is made of solid steel, having the conducting-tube at one end and the barrel at the other, being so constructed as to open or close from the bottom. To close this receiving-chamber and secure the sliding chamber in its place, there is an apron or hinged drop, E, Figs. 1, 2, and represented in section at Figs. 4, 5, and attached to the front part of the chamber by a firm joint, *j*, of sufficient breadth to cover the whole of the under part of the receiving-chamber. About the middle of this drop is a concave chuck, G, Figs. 4, 5, and 2, so adjusted as to press upon the sliding chamber and hold it firm in its place when discharging. At the other end of the drop is a valve-chuck, H, which is so constructed as to rest upon the sliding chamber and hold it firmly down at the rear end. It is also sufficiently broad to travel in and fill up two grooves formed one on each side of the receiving-chamber, and bearing hard against the rear side of the grooves, while the breech of the sliding chamber rests firmly against the front part of said chuck, forming a permanent resistance to the recoil of the chamber when the gun is discharged, and is of sufficient breadth to close entirely the mouth of the conducting-tube, preventing the communication of fire to its contents.

When the apron or drop is forced down to close the receiving-chamber, it is held in its place by the bolt I, which bolt passes under the lock nearly the whole length of it, having at the after end a spiral spring, J, so adjusted as to press the bolt forward, the front end of which passes over the drop at I in Fig. 2, retaining it in a closed position. The bolt is furnished with a trigger, U, Figs. 1, 9, 7, which passes through the side of the lock at No. 3, Fig. 1, and is attached to the bolt. (Represented in section at 9.)

The lock of the gun consists of a brass or iron frame, K, Figs. 1 and 2, (represented in section at 7,) screwed firmly to the rear part of the receiving-chamber, and, extending down

the stock, is secured to it by means of screws. This frame is covered with a plate, called the "trigger-plate," (marked *z*, in section at 11,) which plate is secured to the lock at one end by a small tenon, *e*, which presses into a mortise, while the other is attached to the lock-frame K by means of a screw.

The cock or hammer L (represented in section at Fig. 13) is so formed as to serve the double purpose of a cock and tumbler as they are used in common guns.

The mainspring M, Fig. 2, (represented in section at 8,) is a straight piece of steel secured to the lock-plate by a screw at one end, while the other acts against a lip, N, on the cock, formed for that purpose.

The trigger O, Figs. 1 and 2, (represented in section at Fig. 10,) consists of a sliding plate, P, which travels in grooves prepared for that purpose, with the forward end resting against the cock on the space between N and Q. The other end is a shank, passing through a small chamber and extending nearly to the lower end of the trigger-plate. In this chamber is a spiral spring, passing round the shank, with one end resting against the after part of the chamber and the other against a shoulder on the sliding plate, pressing the forward end of the plate hard against the cock. At the end of the shank there is a lever at right angles with the plate P. The upper end of the lever is attached to the trigger-plate Z by a fulcrum-pin, on which it plays in the form of a joint. At a suitable distance from this pin the end of the shank of the plate P enters, and is also secured by a pin, forming a joint. The lower end of this lever extends down far enough for the finger to rest upon, and is that portion of the trigger used for this purpose when operating with the gun.

When the cock is raised for the purpose of discharging, the end of the plate P enters into the notch Q cut in the hammer and retains it in its raised position. When the trigger is pulled, the end of the cock strikes through the aperture R in the drop F and discharges a percussion-cap on the cone S, which lies below the surface of the gun.

This fire-arm can be discharged about fifteen times to one loading.

The operation is as follows: Fifteen sliding chambers are loaded with powder and ball and a percussion-cap pressed firmly upon each of the cones. These chambers are then placed into the cylindrical conducting-tube through an opening at T, Fig. 3, at the breech of the gun, and then closed by shutting the cover V. The gun is then brought to the shoulder and discharged. The gun is then brought down to a level with the hip. The cock is then drawn back with the thumb of the left hand, which leaves the drop free. The trigger U is then pulled, the bolt I drawn back, and the drop E falls, and the discharged chamber falls into the left hand. The gun is then turned over with the barrel down. A slight motion will cause one of the sliding chambers to pass from the cylindrical tube into the receiving-chamber. The apron or drop is then pushed down into its place, and the gun brought again to the shoulder and discharged, repeating the operation until the fifteen charges are expended. The conducting-tube is then supplied with other sliding chambers, which are ready loaded from a cartridge-box, or those already discharged may be reloaded.

V, the cover of the aperture at the breech of the gun, through which the sliding chambers are put into the conducting-tube, drawn at section 3; W, the spring and catch of the cover V, section 12; X, the spring for throwing open the cover, section 12.

This simple apparatus may be varied to suit the artist.

The above improvements can be applied to small as well as large fire-arms.

The invention claimed by us, the within-named L. BAILEY, J. B. RIPLEY, and W. B. SMITH, and which we desire to secure by Letters Patent, is—

1. The cylindrical conducting-tube passing through the stock of the gun into the receiving-chamber, with its parallel grooves and its cone-channel, in manner substantially as above described.

2. The receiving-chamber, in combination with the cylindrical conducting-tube and the sliding chamber, as described.

3. The sliding chamber, in combination with the cylindrical conducting-tube and receiving chamber, as above described.

4. The drop E, as constructed, in combination with the receiving-chamber, as above described.

5. The trigger O, in combination with the slide and spring, as above described.

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JOHN B. RIPLEY.
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Witnesses:
HARVEY CHASE,
ISRAEL HALL.