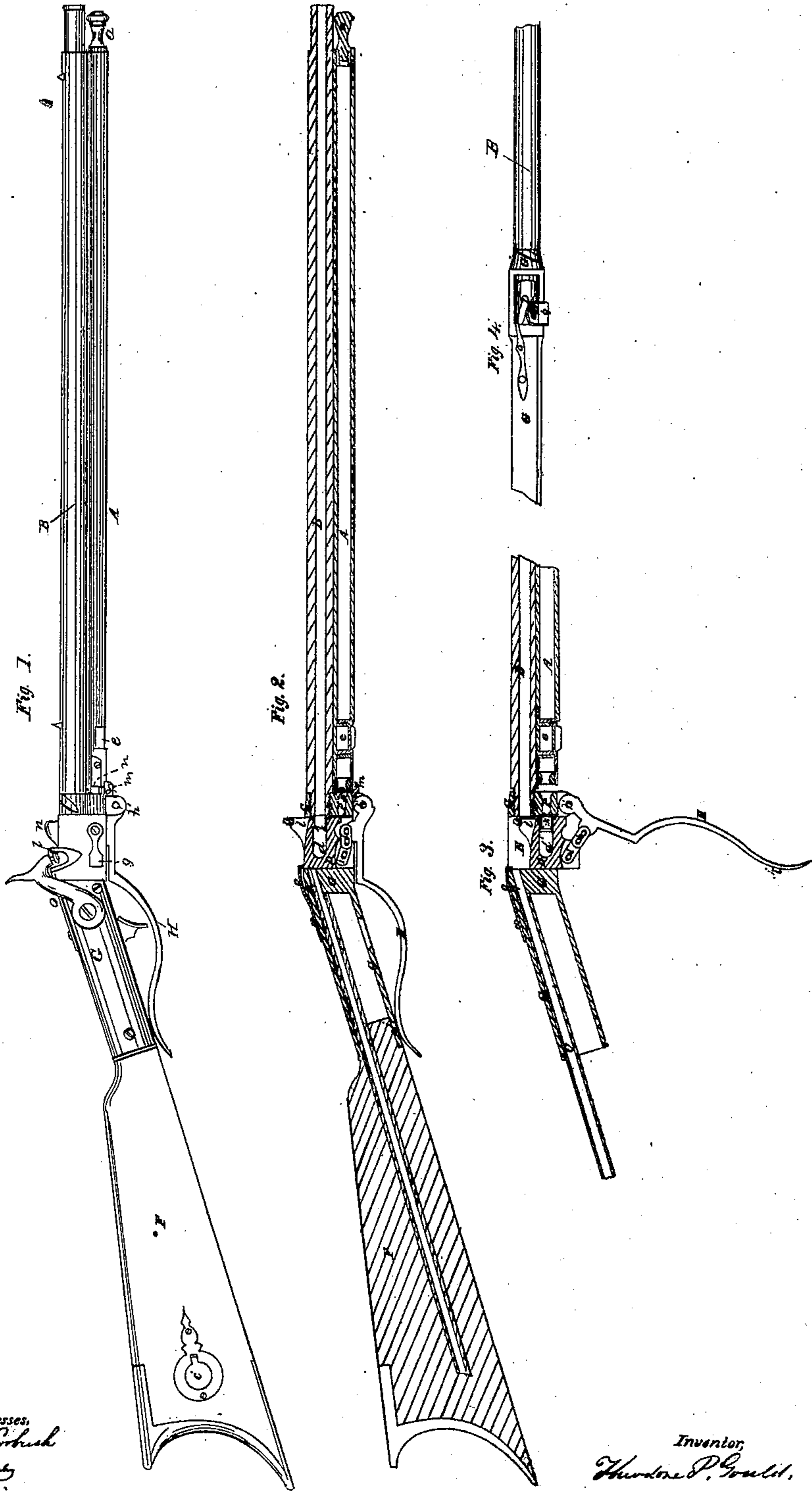


T. P. GOULD.  
Magazine Fire-Arm.

No. 26,734.

Patented Jan. 3, 1860.



Witnesses,  
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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 26,734, dated January 3, 1860.

*To all whom it may concern:*

Be it known that I, THEODORE P. GOULD, of Niagara Falls, county of Niagara, State of New York, have invented certain new and useful Improvements in Breech-Loading Rifles; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure I is a side elevation of my improved breech-loading gun. Fig. II is a longitudinal section of the same. Fig. III is a longitudinal section, the sliding breech being moved down and the parts in position for loading. Fig. IV is a plan of sliding breech, part of the stock, and barrel.

By reference to these figures it will be seen that my invention consists in the arrangement of a powder-magazine, A, running lengthwise under the barrel of the gun B, and of a ball-magazine, C, in the stock of the gun, and also of a sliding breech, D, by which, in combination with the above, I am enabled to feed the ball into the barrel of the gun and the powder into the sliding breech, the sliding breech being manipulated so as to allow the ball to pass over into the barrel of the gun when the chamber of the breech is brought on a line with the powder-magazine. The chamber may then be charged with powder from the magazine and carried back into line with the barrel and behind the ball.

The powder-magazine A consists of a cylindrical metal tube, made as light as may be consistent with required strength. It is secured to the under side of the barrel B, and should be nearly of the same length. It may be filled with powder by removing the screw-stopple *a*. Near its inner or breech end it is furnished with a charger, *e*, which holds a sufficient charge of powder, or enough to fill the chamber in the sliding breech, and by simply turning which such quantity may be discharged into said chamber.

The ball-magazine C consists of a metal tube inserted into the stock of the gun, and capable of holding about the same number of balls as the powder-magazine is capable of holding charges of powder. A lid, *c'*, closes

the mouth of the tube at which the balls are put in.

The stock of the gun consists of a wooden portion, F, formed and shaped in the ordinary manner, and a cast-iron part, G, connecting the wooden part to the barrel of the gun. This cast-iron part has a rectangular mortise, E, made in it near its connection with the barrel of the gun. The sliding breech D moves in this mortise. It has a chamber, *d'*, which receives the charge of powder. The breech D may be moved from having this chamber on a line with the bore of the barrel until it comes on a line with the powder-magazine. The means for moving it consists of the trigger-guard H, which is converted into a lever, having a fulcrum at *h'*, and connected to the sliding breech by the links *i i*. When shut it is held by the catch *j*. The chamber *d'* in the sliding breech is made larger than the bore of the barrel, and a collar of cast-steel, *k*, is fitted tightly into it. The inner circle of this collar or ring is of the same size as the bore of the barrel. It extends only about one-third of the distance into the chamber. Around this collar a second collar or ring of brass, *l*, is fitted. The steel ring naturally expands as it becomes heated by repeated firing, while the brass ring from the same cause contracts and prevents the steel ring from expanding. The steel ring also projects slightly from the front face of the sliding breech D, and with the brass ring should form a circular angular groove. An internal screw is cut in that part of the stock G in front of the mortise. The breech end of the barrel has a corresponding screw-thread cut upon it. When screwed in, the end of the barrel should fit closely into the angular groove formed by the brass and steel rings or collars, as shown in Fig. II. When the barrel is in this position the sliding breech cannot be moved, and the contact between the breech and barrel will be so close as to prevent all windage at that point.

The operation of loading is as follows: The left hand should grasp the barrel at any convenient distance in front of the charger *e*, and the right hand hold of the breech, as usual. With the left hand the barrel should then be

unscrewed one entire revolution. A spring-stop, *m*, prevents it from turning more than this, and holds it until it is wished to turn it back. The barrel is shown in this position in Fig. III. The sliding breech will now be released, and with the right hand the trigger-guard *H* may then be thrown down, moving the sliding breech until the chamber *D* comes nearly on a line with the powder-magazine, when it is stopped by the spring-catch *g*. At the same time the muzzle of the gun should be thrown downward, so that as the sliding breech moves down and uncovers the ball-magazine *C*, which opens into the mortise, a ball will be allowed to run out over the top of the sliding breech and under the bridge *n* and partly into the barrel. A feeder, *o*, allows only one ball to issue from the magazine at each downward motion of the sliding breech *D*. The breech *D* may then be moved a slight distance farther, or until the chamber *d* comes on a line with the powder-magazine, when it will again be stopped by the catch *g*. This latter movement, by carrying the bridge across the bore of the gun, forces the ball into the barrel. The muzzle of the gun should then be raised and the charger *o* turned by the right hand. The gun being held perpendicular, or nearly so, the powder will run directly into the chamber *d*, a hole, *P*, being bored in the part *G* in front of the mortise, through which it passes. The trigger-guard *H* should then be brought back by the right hand and the chamber *d* brought on a line with the bore of the barrel. The barrel should then be screwed back one entire revolution, causing its end to fit into the circular angular groove, as before described. The nipple *Q* is placed on the sliding breech, and, of course, communicates with the cham-

ber *d*. By capping the nipple the gun will be ready to fire.

To prevent all chance of the powder in the magazine becoming ignited, I place a valve, *R*, at the end of the tube forming the magazine, and arrange it in such a way that when the barrel is unscrewed it will open and allow the charge to pass if the charger is turned; but when the barrel is screwed back, and the gun is ready to fire, the valve will close and fit tightly over the mouth of the tube, thus preventing all chance of igniting the powder in the magazine by the discharge of the gun.

By repeating this operation the gun may be fired as many times as the magazines will hold charges, which in this case is about fifty (50,) and at the rate of about twelve (12) shots per minute.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The relative arrangement of the powder-magazine *A*, the ball-magazine *C*, and the sliding breech *D*, for the purposes of a breech-loading gun, substantially as herein set forth.

2. I claim so arranging the valve *R* in relation to the barrel *B* and stock *G* that when the barrel is unscrewed in the act of loading the said valve will open automatically, and when the barrel is turned back to its place the said valve will close automatically and fit tightly over the mouth of the tube, thus preventing all danger of igniting the powder in the magazine by the discharge of the gun, substantially as herein described.

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Witnesses:

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