

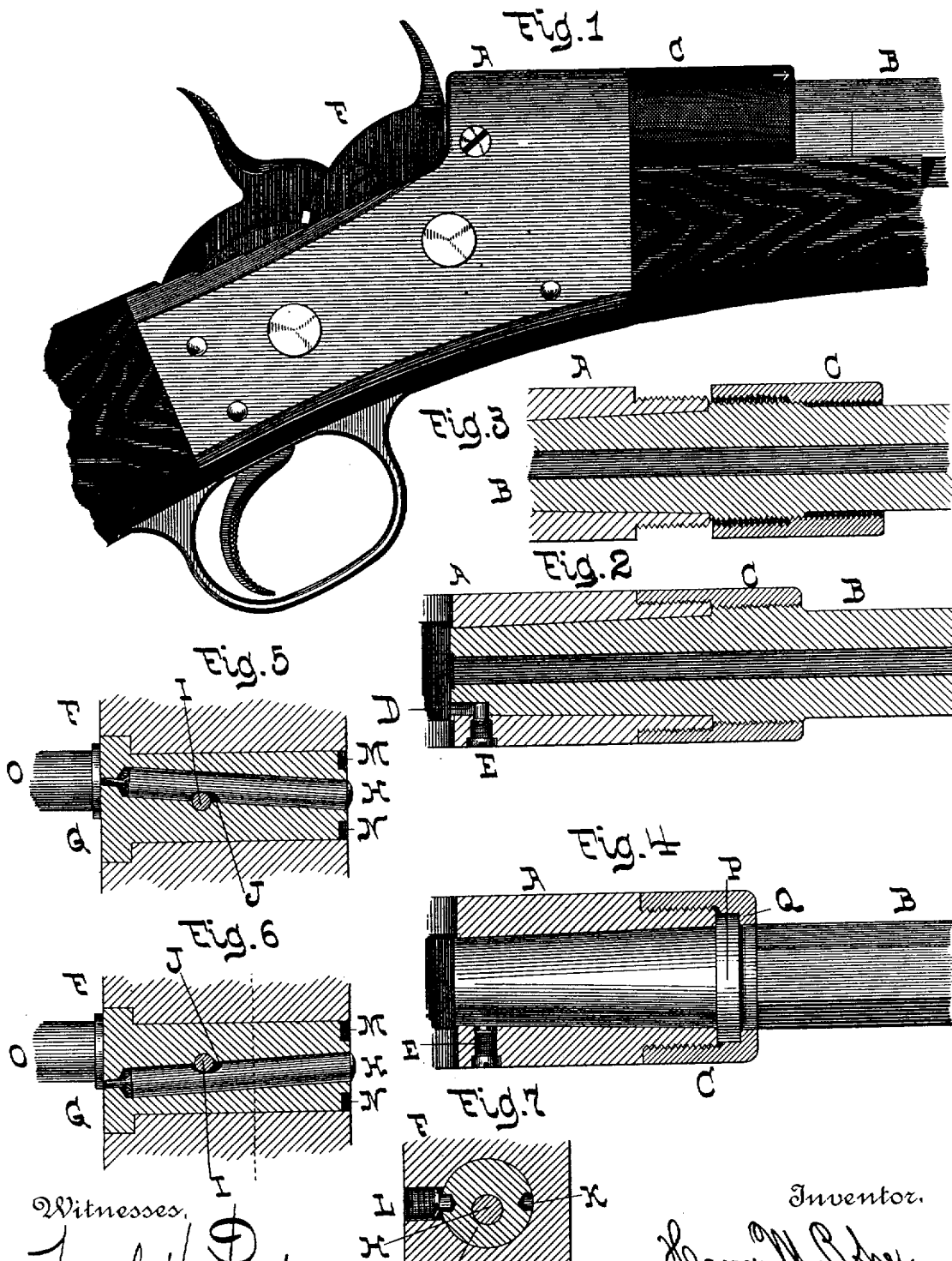
(No Model.)

H. M. POPE.

BREECH LOADING FIRE ARM.

No. 384,277.

Patented June 12, 1888.



Witnesses,

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By his Attorney

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# UNITED STATES PATENT OFFICE.

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## BREECH-LOADING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No 384,277, dated June 12, 1888.

Application filed January 11, 1888. Serial No. 260,709. (No model.)

*To all whom it may concern:*

Be it known that I, HARRY M. POPE, of Hartford, Connecticut, have invented a new and useful Improvement in Breech-Loading  
5 Guns, of which the following description and claims constitute the specification, and which is illustrated by the accompanying sheet of drawings.

This invention consists of a separable combination of the receiver and the gun-barrel of a  
10 gun; and it consists, also, of an adjustable combination of the firing-pin and the breech block of a gun.

The object of making the barrel separable  
15 from the receiver is to admit of the easy substitution of barrels of various calibers for each other in the same gun; and the object of the specified combination of the firing-pin and the breech-block is to make the firing-pin adjustable  
20 in position, so that it will operate upon a center-fire cartridge or a rim-fire cartridge, as may be desired.

Figure 1 of the drawings is a side fragmentary view of a gun containing my improvements.  
25 Fig. 2 is a central horizontal longitudinal section of the receiver and of the rearward portion of the gun-barrel and of the sleeve which unites them. Fig. 3 is a central horizontal longitudinal section of the forward  
30 part of the receiver and of the rearward part of the gun-barrel and of the sleeve when the latter is upon the barrel, but is not upon the receiver. Fig. 4 is a view of a modified form of what is shown in Fig. 2, and showing only  
35 the receiver and the sleeve in section. Fig. 5 is a central vertical fragmentary section of the breech-block, showing the firing-pin within it and opposite to a center-fire cartridge. Fig. 6  
40 is the same as Fig. 5, except that the bushing which holds the firing-pin has been turned one hundred and eighty degrees upon its axis, so as to bring the point of the firing-pin opposite the rim of the cartridge. Fig. 7 is a vertical cross-section on the dotted line of Fig. 6.  
45 The letter A indicates the receiver, while the letter B denotes the gun-barrel, and C is the sleeve which unites them. The barrel is guided to its seat in the receiver by means of its slot D and the point of the set-screw E.

The letter F indicates the breech-block, while  
50 G is a bushing closely fitted within an aperture which extends through the breech-block backward from the bore of the barrel. The axis of that aperture is parallel with the axis of the bore of the barrel, but is located at a  
55 distance below the latter axis corresponding with one quarter of the diameter of that bore. The firing-pin H works in an aperture which passes through the bushing diagonally to the axis thereof, the rear end of its axis being co-  
60 incident with the axis of the bushing, but the forward end of the axis of the firing-pin being placed at a distance above the axis of the bushing corresponding with one-quarter of the di-  
65 ameter of the bore of the barrel when the parts are in the position shown in Fig. 5, and correspondingly below that axis when the parts are in the position shown in Fig. 6.

The firing-pin is limited in its longitudinal motion in the bushing by the pin I, working  
70 in the recess J', and the bushing is provided with the recess K and a corresponding recess on its opposite side for the alternate reception of the set screw L, which is tapped into the side of the breech-block F. The bushing is  
75 also provided with the recesses M and N upon its rearward face for the reception of a bifurcated implement by means of which the bushing may be turned one hundred and eighty  
80 degrees upon its axis, so as to shift the point of the firing-pin from its position shown in Fig. 5 to that shown in Fig. 6, or vice versa, the set-screw L being withdrawn from one of its recesses to permit that shifting, and then being inserted in the opposite recess to hold  
85 the bushing in its new position.

The cartridge is represented by the letter O.

The sleeve C in Figs. 2 and 3 has an exterior diameter which is preferably identical with the horizontal thickness of the receiver  
90 A, and has its interior diameter of two different sizes, the larger one of the two being at the rearward end of the sleeve. That larger diameter is screw-threaded to correspond with the screw-threads on the forward reduced end  
95 of the receiver, while the smaller diameter of the sleeve is screw-threaded to correspond with the screw-threads on the adjacent part of the

gun-barrel. The screw-threads on the receiver exceed in pitch those on the gun-barrel, so that when the sleeve C is turned backward from its position in Fig. 3 to that in Fig. 2 it will travel 5 longitudinally along the receiver faster than it travels along the gun-barrel, thus drawing the gun-barrel into the receiver somewhat slowly, but very powerfully. I recommend that the threads upon the receiver be twenty-four to the 10 inch, while those upon the gun-barrel are twenty-six to the inch; but it is evident that a greater or a less diversity than this between the pitches of the two screw-threads will operate in the same way. The differential screw-threads 15 thus constructed upon the receiver, the gun-barrel, and the sleeve constitute a means of conveniently fastening the barrel within the receiver with great rigidity, and with no larger expenditure of power than may be conveniently 20 exerted by the hand of the gunner upon the exterior milled surface of the sleeve.

The modified form shown in Fig. 4 differs from that shown in Figs. 2 and 3 in that the screw-threaded union between the sleeve and 25 the gun-barrel is omitted, and the annular shoulder P upon the gun-barrel and the annular flange Q upon the sleeve is substituted therefor. This construction is inferior to the other; but it is superior to any third method 30 known to me of removably fastening a gun-barrel in the receiver of a gun.

I claim as my invention—

1. The combination of the receiver A, provided with a forward extension, the barrel B, provided with a rearward extension accurately 35 and removably fitted within the receiver, and the sleeve C, interiorly screw-threaded and fitted to the exterior of the forward projection of the receiver and to the exterior of the adjacent part of the barrel, and adapted by being 40 turned upon its axis to rigidly fasten the barrel to the receiver, all substantially as described.

2. The combination of the receiver A, provided with an exteriorly screw-threaded forward extension, the barrel B, removably fitted 45 to the receiver and provided with an exterior screw-thread of smaller diameter and less pitch than that of the receiver A, and the sleeve C, provided at one end with an interior screw-thread conforming to the screw-thread of the 50 receiver A, and at the other end with an interior screw-thread conforming to the screw-thread of the barrel B, all substantially as described.

3. The combination of the breech-block F, 55 the bushing G, adjustably fitted within the breech-block, and the firing pin H, working within that bushing diagonally to the axis thereof, substantially as described.

January 12, 1888.

HARRY M. POPE.

Witnesses:

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