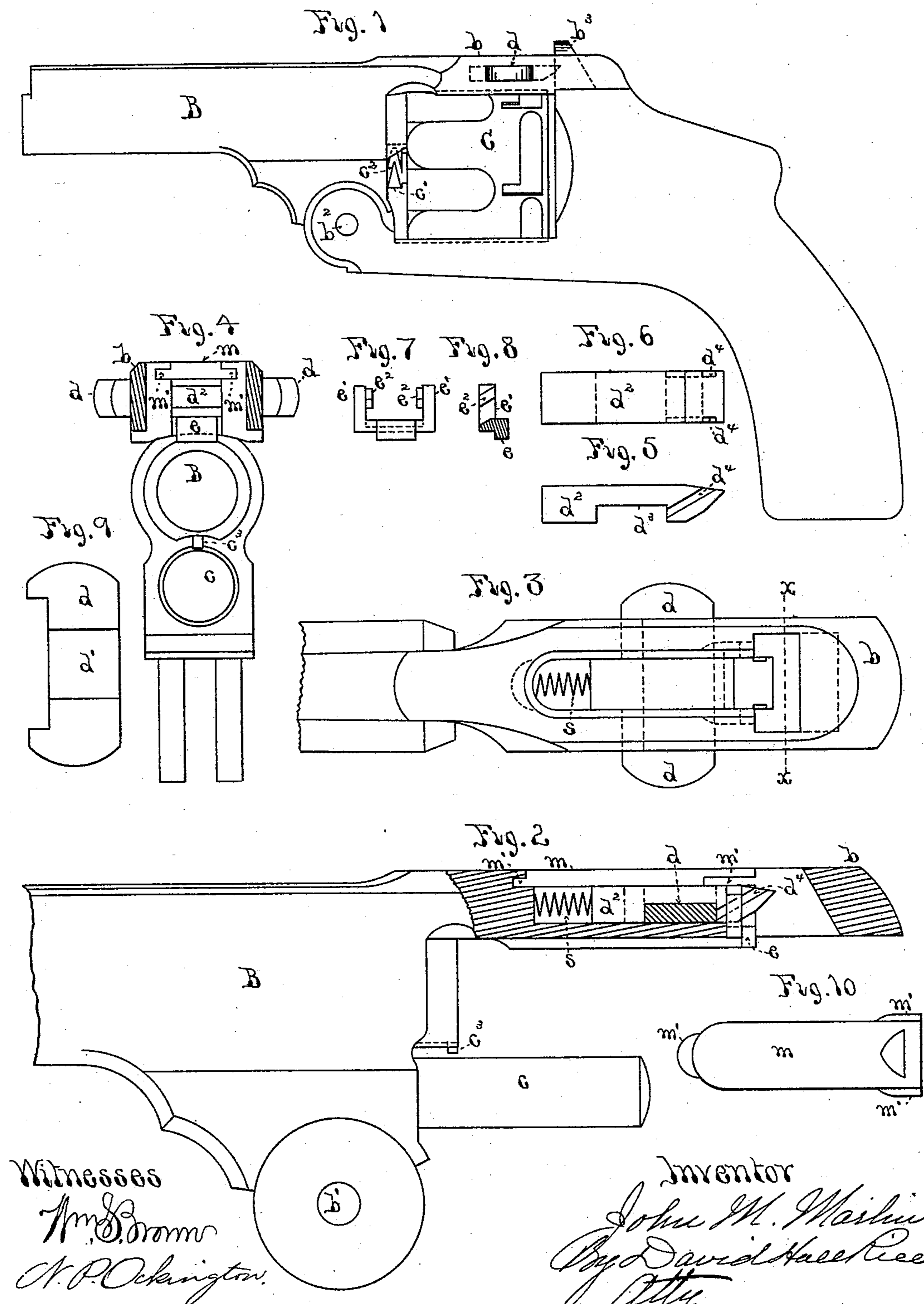


(No Model.)

J. M. MARLIN.  
REVOLVING FIRE ARM.

No. 413,197.

Patented Oct. 22, 1889.



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN M. MARLIN, OF NEW HAVEN, CONNECTICUT.

## REVOLVING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 413,197, dated October 22, 1889.

Application filed March 28, 1887. Serial No. 232,763. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN M. MARLIN, of New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Revolving Fire-Arms, of which the following is a specification.

My invention relates to revolving fire-arms; and it consists in certain new and useful constructions and combinations of the several parts of the same, substantially as hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of a revolving fire-arm constructed according to my invention. Fig. 2 is an enlarged side elevation of a portion of the same, partly in section to show the internal construction. Fig. 3 is a top plan view of a portion of the same. Fig. 4 is an end view looking forward from the section-line  $x x$  of Fig. 3. Figs. 5, 6, 7, and 8 are detail views of the bolt and catch mechanism for locking the barrel to the frame and securing the cylinder in place, to which my invention relates. Fig. 9 is a top plan view of cross-bar and thumb-piece of the locking-bolt. Fig. 10 is a top plan view of the sliding cover which is used to secure and cover the locking-bolt when it is inserted in place in the frame.

B is the barrel of the arm, having an extension  $b$  rearward over the cylinder, of the usual general form. A projection below the barrel carries the pivot-bearing  $b'$ , in which the pivot  $b^2$  connects the barrel to the frame and allows it to be swung upward to extract the cartridges and reload the cylinder in the usual way. A stud  $b^3$  projects upward from the frame and passes through a mortise in the barrel-extension  $b$ , and in the front side of this stud, within the mortise, is a notch cut to receive the latch which locks the extension and stud together.

C is the revolving cylinder, which turns on the pin  $c$  in the usual manner. It is provided with a tubular extension projecting forward from it around the pin  $c$ , and on the outer end of this extension the band or flange  $c'$  projects radially outward therefrom. Through this band is cut the groove  $c^2$ , of V contour, partly around the band in one direction and backward in the other, the space between the band and the front end of the cylinder

forming a groove all around the tubular extension between them. Where the latter groove is met by the end of groove  $c^2$  the inclination of groove  $c^2$  is in the direction to cause a pin  $c^3$  in the lower side of the barrel, which is made to fit these grooves, to pass by the grooves  $c^3$  as the cylinder is revolved forwardly on its axial pin  $c$ . To adjust the cylinder C in place on its pin  $c$ , it is shoved onto the latter until the collar  $c'$  comes in contact with pin  $c^3$ . By turning the cylinder first backward and then forward the pin  $c^3$  is then passed through the groove  $c^2$ , and the cylinder cannot be removed from its axial pin  $c$  until these movements are reversed.

To afford additional security against the cylinder escaping from its pivot-pin  $c$ , I have provided a stop  $e$  in the extension  $b$  of the barrel, which projects down behind the cylinder and slides up and down in guideways therein, and is operated in connection with the latch or bolt which locks the extension to the stud  $b^3$  in the following manner: A longitudinal chamber is cut in the upper side or face of the extension  $b$  from the mortise which receives the stud  $b^3$  toward the barrel, about three-fourths of the way downward through the same. Through the side walls of this chamber, across the extension  $b$ , is cut a cross-slot which receives the cross-bar  $d$ . The central part of the cross-bar  $d$  is narrower horizontally than its ends which overlap the faces of the extension  $b$  on each side, and the cross-slot in which it is fitted is as wide as its ends, all of which is shown in Figs. 2, 3, and 9 by full and dotted lines. This construction allows of the cross-bar sliding bodily forward and backward in its cross-slot. A transverse slot  $d'$  is also cut in the upper face of cross-bar  $d$ , to receive the bolt  $d^2$  when they are fitted in place in extension  $b$ . The bolt or latch  $d^2$  is a bar rectangular in cross-section and beveled off at one end. It has a transverse slot  $d^3$  made across its lower face to fit snugly over the central portion of cross-bar  $d$ . It also has in its vertical opposite faces or sides inclined grooves  $d^4$ . The stop  $e$  has at its ends upright parallel arms  $e' e'$ , just wide enough apart between their inside faces to receive the breadth of the bolt  $d^2$  easily between them, and on each of these inside faces is a tongue

$e^2$ , projecting inwardly, of the proper size to fit and slide easily in the groove  $d^4$  in the bolt and at such an angle as to hold the stop  $e$  vertical when the bolt is horizontal. At the rear end of the longitudinal chamber in extension  $b$ , which receives bolt  $d^2$ , is cut a vertical mortise through the extension wide enough and of the proportions to receive the stop  $e$  and its uprights  $e' e'$  and form guideways in which they can move up and down a sufficient distance to cause the stop to project downward behind the cylinder or be withdrawn therefrom.

Between the forward end of the bolt  $d^2$  and the forward end of its chamber a spiral spring  $s$  is introduced to hold the bolt in its backward position. A cover  $m$ , Figs. 2, 4, and 10, is made to fit over the bolt  $d^2$  and close its chamber in extension  $b$ . It has small tongues  $m' m'$  upon its sides and forward end, which fit into corresponding slots in extension  $b$ , as shown. This cover is introduced in place by dropping its side tongues into the mortise of stud  $b^3$ , and then sliding it forward until the tongues enter their slots. The cover thus serves to hold the bolt or latch  $d^2$  in its position of engagement with the cross-bar  $d$  and prevent its being raised or thrown out of place when the latch automatically locks itself in closing the barrel upon the frame.

In assembling the parts the cross-bar  $d$  is introduced into its transverse slot with its groove  $d'$  upward, and the stop  $e$  is inserted from beneath into its vertical guideways. The bolt  $d^2$  is placed in its chamber with its grooves  $d^3$  downward and the tongues  $e^2 e^2$  of the stop entered into its grooves  $d^4 d^4$ , and its slot  $d^3$  made to embrace cross-bar  $d$ , while the groove  $d'$  in the latter embraces the bolt. The spring  $s$  is inserted in front of bolt  $d^2$ ,

and, lastly, the cover  $m$  is inserted, as above described. It will be observed that the bolt  $d^2$  and cross-bar  $d$  mutually lock each other in place, and the beveled end of the bolt on its under side permits it to slip past stud  $b$ , and automatically latch itself, securing the barrel-extension  $b$  to the stud  $b^3$ , and that by pressing forward on the cross-bar  $d$  the bolt  $d^2$  is carried forward and unlatched from stud  $b^3$ , while at the same time the action of the grooves  $d^4 d^4$  upon the tongues  $e^2 e^2$  of stop  $e$  raises the latter in its guideway and permits the cylinder to be withdrawn from its pivot  $c$ . Only one groove  $d^4$  and one tongue  $e^2$  may be used to accomplish this latter movement, if desired; but I prefer to employ two of each, as described.

What I claim as new and of my invention is—

1. The combination of the latch  $d^2$ , located in its chamber in the barrel-extension  $b$  and provided with one or more grooves  $d^4$ , and the cylinder  $C$ , with the stop  $e$ , mounted in a vertical guideway in said extension, and provided with one or more tongues  $e^2$ , engaging with said groove or grooves and adapted to raise and lower said stop by the movement of the bolt, substantially as described.

2. The combination of the latch or bolt  $d^2$ , having the transverse slot  $d^3$ , embracing the cross-bar  $d$  and the inclined slot or slots  $d^4$  and adapted to lock the extension  $b$  to the frame of the arm, the cross-bar  $d$ , having the slot  $d'$ , embracing the bolt, the catch  $e$ , having the tongue or tongues  $e^2$ , engaging with said inclined slot or slots, and the revolving cylinder  $C$ , substantially as described.

JOHN M. MARLIN.

Witnesses:

C. F. DEMMER,  
J. F. LAWLER.