J. RUPERTUS.

REVOLVING FIRE-ARMS.

No. 169,848. Patented Nov. 9, 1875.

FIG. 1.

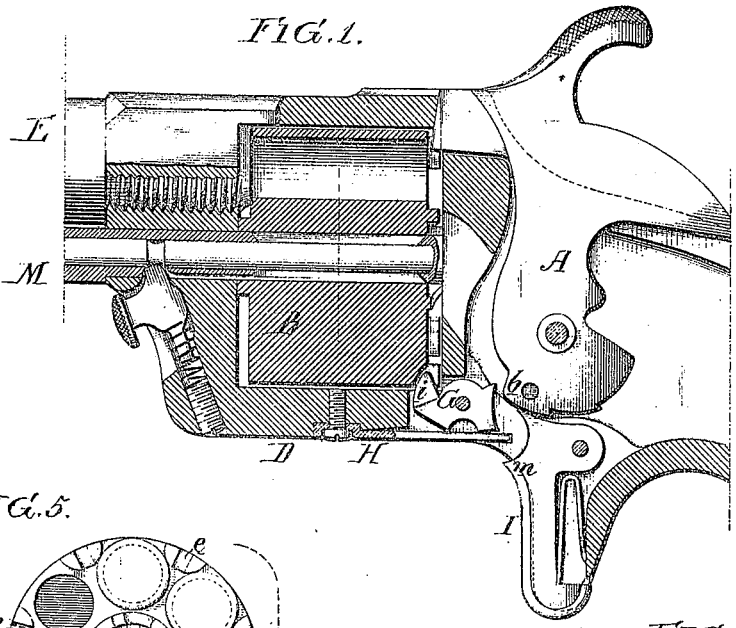


FIG. 5.

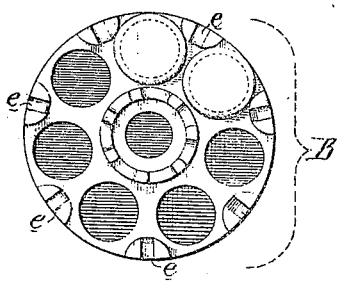


FIG. 2.

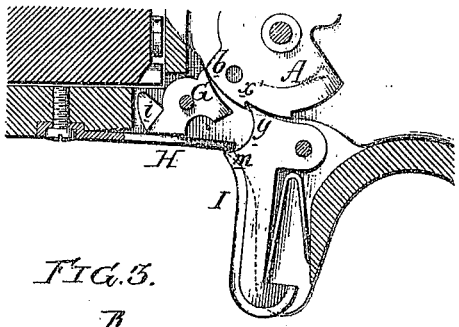


FIG. 4.

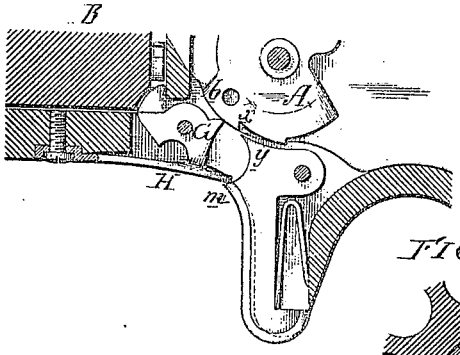


FIG. 3.

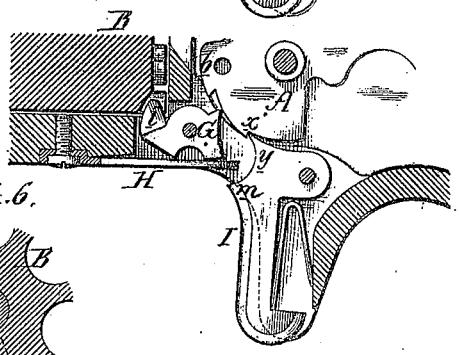
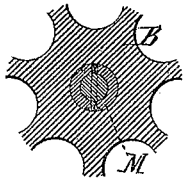


FIG. 6.



Witnesses,
Hubert Howson
Thomas M. Shuain

Jacob Rupertus
by his Attorneys,
Howson and Sons

UNITED STATES PATENT OFFICE.

JACOB RUPERTUS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN REVOLVING FIRE-ARMS.

Specification forming part of Letters Patent No. 169,848, dated November 9, 1875; application filed August 16, 1875.

To all whom it may concern:

Be it known that I, JACOB RUPERTUS, of Philadelphia, Pennsylvania, have invented certain Improvements in Revolving Fire-Arms, of which the following is a specification:

The main objects of my invention are, first, to effectually lock and release the cylinders of revolving fire-arms by simple devices; second, to prevent the accidental discharge of any of the cartridges; third, to prevent the first notch of the hammer during its descent from catching against the trigger; and, fourth, to prevent the cylinder from being moved too far by the action of the usual finger. These objects I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a vertical section of sufficient of a revolving fire-arm to illustrate my invention; Figs. 2, 3, and 4, views of parts of Fig. 1, showing the operating parts in different positions; Fig. 5, a rear view of the cylinder; and Fig. 6, a sectional view of part of the cylinder.

A represents the hammer, B the cylinder, D the frame, E part of the barrel, and I the trigger, of a revolving fire-arm. The cylinder B has, in the present instance, seven bores, and is, as usual, turned by the hammer, through the medium of the ordinary finger and ratchet common to other revolvers. At the rear of the cylinder there are as many notches *e* as there are bores, the notches being situated between the said bores and at the edge of the cylinder, and each notch being formed, in the present instance, by two projecting lugs of such a form and size as not to interfere with the heads of the cartridges.

When my improved fire-arm is not required for immediate use, the nose of the hammer is introduced into one or other of the notches *e*, and is thus isolated from the cartridge; hence the loaded weapon can be carried in the pocket with perfect safety.

The cylinder-stop G, which constitutes the main feature of my invention, consists of a lever, of the form shown, hung loosely to a pin passing through the frame, the front arm of this lever having a tooth or projection, *i*, adapted to the notches *e* in the cylinder. These notches *e* are of peculiar shape, that portion of each notch which receives the nose of the stop G being curved to admit of the free movement of the said stop without interfering with the requirements of the notch as a rest for the nose of the hammer. When the hammer is down—in fact, before it strikes the head of the cartridge—the stop G is under the sole control of the spring H, which tends to maintain the projection *i* of the stop in one of the notches of the cylinder, and thus locks the latter, as shown in Fig. 1.

On raising the hammer from the position shown in Fig. 1 to that seen in Fig. 2, where the first notch *x* has passed the projection *y* of the trigger, the projection *b* on the hammer has so acted on the cylinder-stop as to withdraw its projection *i* from the notch in the said cylinder, thereby setting the latter at liberty, so that it can be turned by the usual finger and ratchet on the further movement of the hammer. Before the hammer has reached the position of full-cock, as shown in Fig. 3, the cylinder-stop has been released from the control of the projection *b* of the hammer, and through the action of the spring H the projection *i* has again entered one of the notches of the cylinder, so that the latter must be locked when the hammer reaches the position of full-cock. When the hammer is released by pulling the trigger the projection *b* will strike the cylinder-stop and cause the projection *i* of the same to penetrate farther into the notch of the cylinder than heretofore. At the same time the spring H will be depressed against the projection *m* of the trigger, (see Fig. 4,) and will prevent the projection *y* of the said trigger from entering the notch *x* of the hammer and interfering with the downward movement of the same. When the hammer, continuing its downward movement, has again reached its first position, as shown in Fig. 1, it will have no further control of the cylinder-stop. Hence the spring H will restore the stop to its original position, and will cease to act on the trigger. The center-pin M, on which the cylinder revolves, is split, as shown in Figs. 1 and 6, the cylinder being so fitted to the pin that it tends to slightly contract the same; hence there must be a continuous tendency on the part of the split pin to expand and cause such friction against the bore of the cylinder as to prevent

the latter from being moved too far, in which case the stop would fail to enter the notch. In splitting the center-pin longitudinal slots are formed, and those have the advantage of forming receptacles for receiving the dirt formed on the pin by firing. In the present instance the center-pin is tubular; but a solid pin may be split with the view of imparting to it the above-described advantages.

I do not desire to claim, broadly, a split center-pin for the cylinder of a revolver; but

I claim as my invention—

1. The combination, in a revolver, of the cylinder B, notched at its rear edge, the cylinder-stop G, and the hammer A, with its projection *b*, all substantially as herein set forth.

2. The combination of the hammer A, cylinder-stop G, spring H, and projection *m* on the trigger.

3. The notches *e*, each of which is adapted to the nose of the hammer, and continued on a curve to suit the nose of the stop G, as set forth.

4. In combination with the cylinder of a revolver, a center-pin split throughout the length of the cylinder, and restricted in its expansion by the same, all as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JACOB RUPERTUS.

Witnesses:

HUBERT HOWSON,

HARRY SMITH.