

R. WHITE.
Revolving Fire-Arm.

No. 93,653.

Patented Aug. 10, 1869.

Fig. 1.

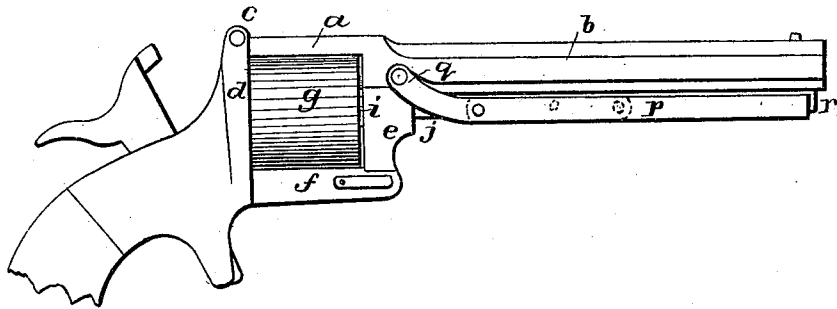


Fig. 3.

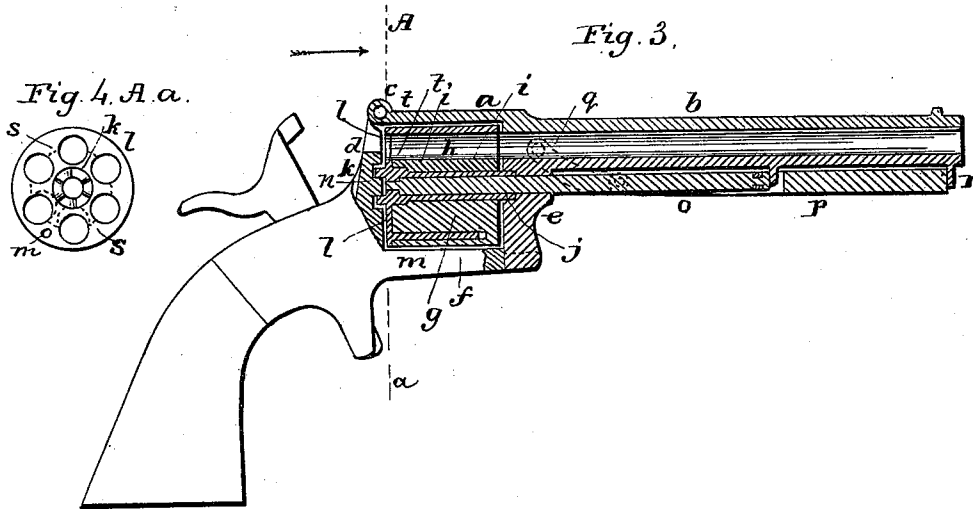


Fig. 4. A. a.

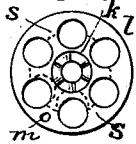
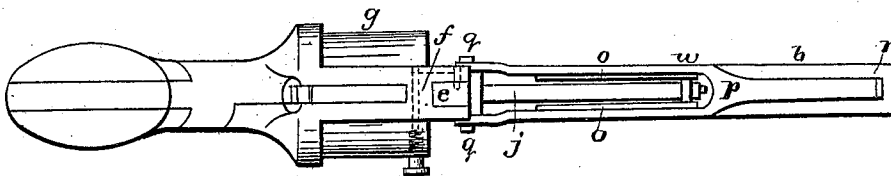


Fig. 2.



Witnesses:

Wm. A. Burhop

Andrew D. Delacy

Inventor:

Rollin White

UNITED STATES PATENT OFFICE.

ROLLIN WHITE, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN REVOLVING FIRE-ARMS.

Specification forming part of Letters Patent No. **93,653**, dated August 10, 1869.

To all whom it may concern:

Be it known that I, ROLLIN WHITE, of Lowell, in the State of Massachusetts, have invented a new and useful Improvement in the Means for Discharging Metallic Cartridge-Cases from the Chambers of Repeating Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side elevation of a pistol on my improved plan; Fig. 2, a view of the under side thereof; Fig. 3, a longitudinal section in the plane of the axis of the barrel, and Fig. 4 a cross-section taken at the line A *a* of Fig. 3. The same letters indicate like parts in all the figures.

My said invention is for the purpose of discharging the metallic cartridge-cases from the chambers in that class of repeating fire-arms which consists of a cylinder having a series of chambers bored entirely through, and which is rotated to bring the several chambers successively in line with a fixed barrel to be fired.

A strap of metal, *a*, projecting rearward from the barrel *b*, is hinged at *c* to the upper part of the recoil-shield *d*, making part of the lock-frame, and another but downward projection, *e*, from the rear part of the barrel fits into and is secured by a spring-latch in a projection, *f*, of the lock frame.

The many-chambered cylinder *g* is mounted between the projection *f* of the lock-frame and the strap *a* on the end of the barrel. The chambers *h* of the cylinder are bored entirely through, so that metallic-cased cartridges can be inserted from the rear end of the cylinder when the barrel is unlatched and lifted up, and when the barrel is brought down and latched the recoil-shield incloses the rear end of the cylinder and shuts in the cartridges. The central bore of the cylinder is fitted on a tube, *i*, which is inserted from the rear end, the forward end of which is fitted to and secured in the projection *e* from the under part of the barrel. The rear portion of this tube is of greater diameter than the forward portion, and the central bore of the cylinder is of corresponding form, so that when the tube is secured in place the cylinder cannot slide back. To the bore of

this tube is fitted a central cylindrical spindle, *j*, which is free to slide therein longitudinally, and to the rear end of this spindle is properly secured the hub *k* of a plate or disk, *l*, which, when brought in contact with, fits against the rear end of the cylinder, and between it and the recoil-shield; and to this plate or disk, and near the periphery thereof, is secured a cylindrical pin, *m*, parallel with the spindle *j*, and fitted to slide in a small hole bored in the cylinder near the periphery and between any two of the chambers. The object of this cylindrical pin is to cause the plate or disk *l* to turn with the cylinder, so that any equivalent means may be substituted for this pin. The rear end of the hub *k* of the plate or disk *l* is tubular, and when the barrel is locked in place this tubular projection turns in an annular recess in the recoil-shield, the central projection, *n*, fitting into the hollow of the tubular hub and acting as a pivot to the rear end of the spindle. Ratchet-teeth are formed in the rear edge of the tubular hub to receive the action of the mechanism of the lock to turn the cylinder in manner well known to those acquainted with this class of repeating-arms.

The forward end of the spindle *j* is connected by a swivel-joint with a reciprocating carrier, *w*, to which a pair of links, *o o*, are hinged, and at their opposite ends are also hinged to the two forks of a hand-lever, *p*, which turns on fulcrum-pins at *q*, near the rear end of the barrel, by the movement of which the spindle *j*, with its plate or disk *l*, can be pushed back when the barrel is unlatched and thrown up to expose the rear end of the cylinder. When the plate or disk is drawn forward in contact with the cylinder the lever *p* lies under the barrel, and is there held by a spring-catch at *r*. The plate or disk *l* is bored through to correspond with the chambers in the cylinder, and as the kind of metallic-cased cartridges intended to be used in arms of this kind have a flange or other lateral projection on their end, when inserted in the chambers of the cylinder such flange or other projection will bear against the outer face of the plate or disk *l*, so that when the said plate is pushed back by the lever *p* all the cartridge-cases will be drawn out of and discharged from the cylinder.

I prefer to make the plate or disk *l* of the

same diameter as the cylinder, so as to entirely surround each cartridge, and as the force of the discharge tends to expand the cases, and this would tend to make the cartridge cases bind in the holes in the plate or disk of the ejector, so that they would not readily drop out of the plate after being drawn out of the chambers, I effectually prevent such binding by forming the rear end of the cylinder with projecting flanges *t* and make the ejector-plate to fit outside of such flanges. The outer surface of these flanges I prefer to have beveled and the holes in the plate or ejector made of a form to fit over such bevel. In this way the chambers receive and resist the expansion of the cartridge cases, and the friction induced by such binding is readily overcome by the lever-power connected with the ejector, and by which it is operated. This part of my invention may be dispensed with and still retain some of the advantages due to the other improvements.

Instead of making the ejector-plate of the full diameter of the cylinder, a recess may be made in the rear end of the cylinder equal in depth to the thickness of the plate, to receive the plate, which may be made of just sufficient diameter to extend under a portion of the flange of each of the cartridges, as represented by the red line *s* in Fig. 4, which shows a portion of the plate so made; and although I have described my said invention as applied to a many-chambered cylinder in which the flanged car-

tridges are inserted at the rear end, I do not wish to be understood as limiting my claim of invention to such application, as it will be obvious that it is equally applicable to a cylinder having the chambers so formed that the flanged cartridges are inserted at the front end, the flanges of the cartridges being also at the front end.

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

1. In combination with a revolving many-chambered cylinder and a cartridge ejector revolving therewith and moved by a reciprocating non-rotating carrier, *w*, a swivel-joint to allow the ejector to turn independently of the carrier, substantially as described.

2. The cartridge-ejector and many-chambered cylinder, in combination with a lever to operate the ejector, substantially as described.

3. In combination with the many-chambered cylinder and cartridge-ejector, a projecting flange, *t*, around or partially around the end of each chamber, substantially as described, to prevent the cartridge case from binding in the ejector, as set forth.

4. In combination with the revolving cylinder and ejector, the tube *i*, substantially as and for the purpose described.

ROLLIN WHITE.

Witnesses:

WALTER CURTIS,
GEO. L. ROBERTS.