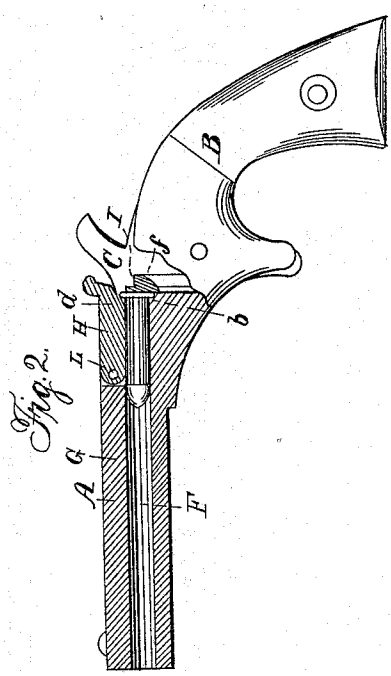
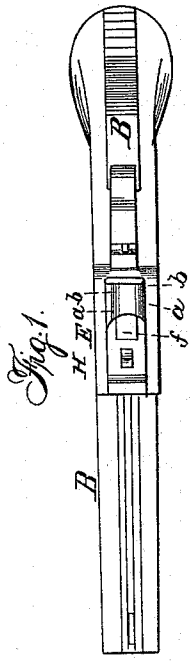
H. REYNOLDS.

Breech-Loading Fire-Arm.

No. 54,600. Patented May 8, 1866.





Witnesses

Inventor.

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UNITED STATES PATENT OFFICE.

HENRY REYNOLDS, OF NEW HAVEN, CONNECTICUT.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. **54,600**, dated May 8, 1866.

To all whom it may concern:

Be it known that I, HENRY REYNOLDS, of the city and county of New Haven, and State of Connecticut, have invented new and useful Improvements in Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The present invention relates to improvements that are applicable to any of the well-known classes of fire-arms, whether pistols, rifles, carbines, &c., in which metallic-case cartridge-shots are used, and that are adapted to the reception of only one charge at a time, requiring the removal of the metallic case after a discharge before another cartridge can be inserted; and it consists in forming at the breech end of the barrel and along its upper side for a portion of its length a slot or opening communicating with the bore of the barrel, and of a little greater width than the diameter of the said bore, forming a shoulder upon each side thereof, which slot or opening is of sufficient length that when the cartridge-case shot is laid therein and pushed into the barrel, coming to a bearing by its fulminate or flanged end against a shoulder of the rear end of the breech, the open end of the cartridge-case in which the shot is secured will slightly project beyond the front end of the said slot and extend into the closed portion of the barrel. In the front end of this slot is so hung a cover or closing-piece therefor that it can be freely swung up or down, which cover is made of such a shape that it will nicely and closely fit within and about the said breech-slot and the upper side of the cartridge therein inserted when swung down and into the slot, and also cover the rear or closed end of the cartridge-case, but with an aperture through such rear covering-piece in the proper place to allow the hammer of the fire-arm to penetrate to the fulminate edge or rim of the cartridge for igniting the same when so desired, this cover to the breech opening or slot in the barrel of the fire-arm being held closed or shut when the hammer is down or at "half-cock," so termed, by the hammer itself, which at such times is over and engaged with a lug upon the rear end of the cover, the hammer, when at "full-cock," so termed, being entirely removed from the said lug of the breech cover-piece, leaving the cover free to be swung up and out of the barrel, when the cartridge-case or shot therein can then be readily removed by simply turning over the fire-arm and bringing its breech slot or opening upon the under side, when the case or shot, having nothing then to retain it, will, as is obvious, fall out of the barrel-bore.

In accompanying plate of drawings my improvements are illustrated, Figure 1 being a plan or top view of a pistol having them applied to its end; Fig. 2, a central vertical section through the barrel portion of the pistol shown in Fig. 1, taken in the direction of its length.

Similar letters of reference indicate like parts.

A in the drawings represents the barrel of the pistol; B, the stock or handle containing the operating parts of the pistol, the arrangement and operation of which is the same as are now in common use, therefore requiring no particular description herein, C being the hammer, susceptible of being set at half and full cock, as in ordinary pistols.

The rear or breech portion or end of the barrel A, and upon its upper side, is cut out, forming a slot, E, a little greater in width than the diameter of the barrel-bore F, leaving shoulders *a a* upon each side in the same horizontal plane, or nearly so, as the central axis of the bore F, which slot extends from the rear end of the barrel toward its front or muzzle end, and is a little less in length than the length of the metallic case of the cartridge-shot, adapted to the bore of the pistol, so that when the cartridge has been laid in the barrel through the said slot E and pushed forward therein till its fulminate or flanged end comes to a bearing against the annular shoulder *b* at the rear end of the barrel, its front or open end, in which the shot or bullet is secured, will extend a little beyond the front end of the slot and into the closed portion G of the barrel, for a purpose to be hereinafter stated.

In the barrel-slot E, and nicely and closely fitted between its two sides C C, is hung a cover or closing piece, H, upon a transverse pivot, L, so that it can be swung up and down,

which cover H is of such a form that when swung down and into the slot E it will entirely fill the same and cover and incase the upper portion of the cartridge-case therein inserted, and also, by a projecting piece, I, upon its rear end, cover the closed or fulminate end of the cartridge, a slot, *d*, being made in rear piece, I, at the proper point, and of suitable shape to allow the hammer of the pistol to penetrate or pass through it to strike the fulminate rim or edge of the cartridge-case when the pistol is to be discharged.

On the lower portion of the rear end of the cover-piece H is a lug or hook-shaped projection, *f*, extending toward the hammer, over which lug the hammer fits when down or against the barrel-breech, thus firmly holding the breech-cover in place, the hammer, when at half-cock, still engaging with the said lug, which is made of the proper shape therefor, whereby the pistol or whatever other class of fire-arms my improvement may be applied to, when set at half-cock, is rendered susceptible of being carried with no danger of the cartridge falling out, as the breech-cover closed over it can then by no possibility swing open, the hammer-cover, when at full-cock, being then sufficiently removed from the swinging plane of the cover-lug as to offer no obstruction to its movement, thus leaving the cover free to be swung up or down, as the case may be, accordingly opening or closing the breech of the barrel.

From the above description it is obvious that when the breech is opened by swinging up its cover or closing piece a cartridge can be readily inserted in the barrel or a waste cartridge-case discharged therefrom by simply turning the pistol over so as to bring its open side down, the case then freely falling out of the barrel; but that when the breech-cover is shut the cartridge is retained in place and can by no possibility fall from the barrel, the breech-slot, by being made a little shorter than the cartridge-case, completely preventing the escape of any of the explosive gases as the pistol is discharged at the joints of the cover with the breech-slot, the importance of which is apparent, while at the same time the slot is not to be made so short in length compared with the cartridge-case that the case cannot freely fall out when the pistol is turned over, as before stated.

To insure the withdrawal of the waste cartridge-case after a discharge of the pistol having its breech constructed according to the present invention, it may be desirable to form a recess corresponding in shape to the fulminate or closed end of the metallic cartridge-shot, and directly back of the same, in the front end of the rear portion of the breech-cover, and of such a depth that when the pistol has been discharged the open end of the cartridge-case, by the recoil of the explosive force exerted by such discharge, can be thrown back and beyond the front end of the breech-slot sufficiently to clear it, or, at least, so that it will be lifted up as the breech-cover is swung open, and thereby withdrawn from the barrel.

I claim as new and desire to secure by Letters Patent—

The arrangement of the cover H, projecting piece I, lug *f*, hammer C, in combination with the barrel A, with its slot E, and operating in the manner and for the purpose herein specified.

HENRY REYNOLDS.

Witnesses:

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