

(No Model.)

I. CURTIS & L. J. RUSSELL.

MAGAZINE FIRE ARM.

No. 316,880.

Patented Apr. 28, 1885.

Fig 1

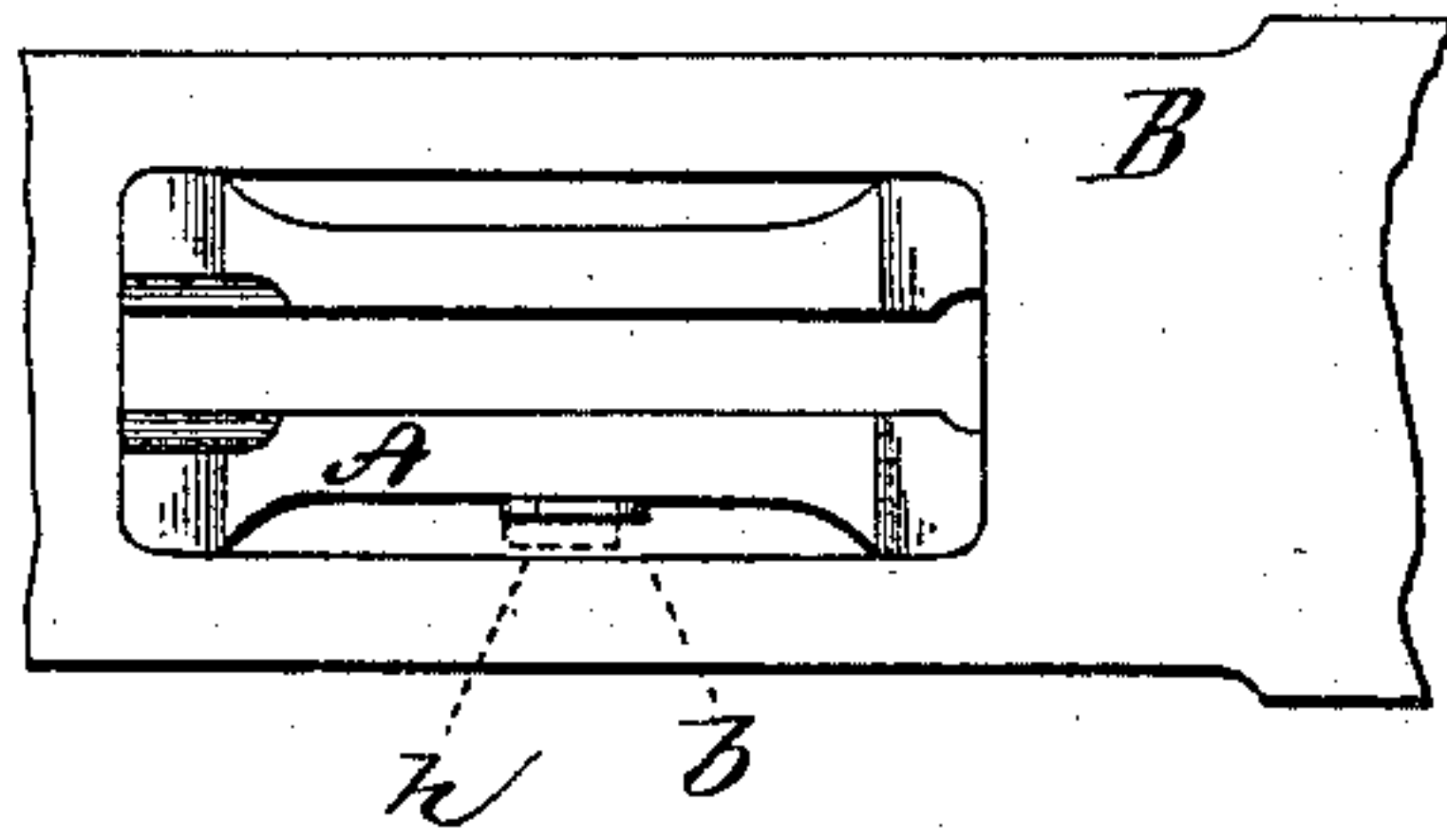


Fig 2

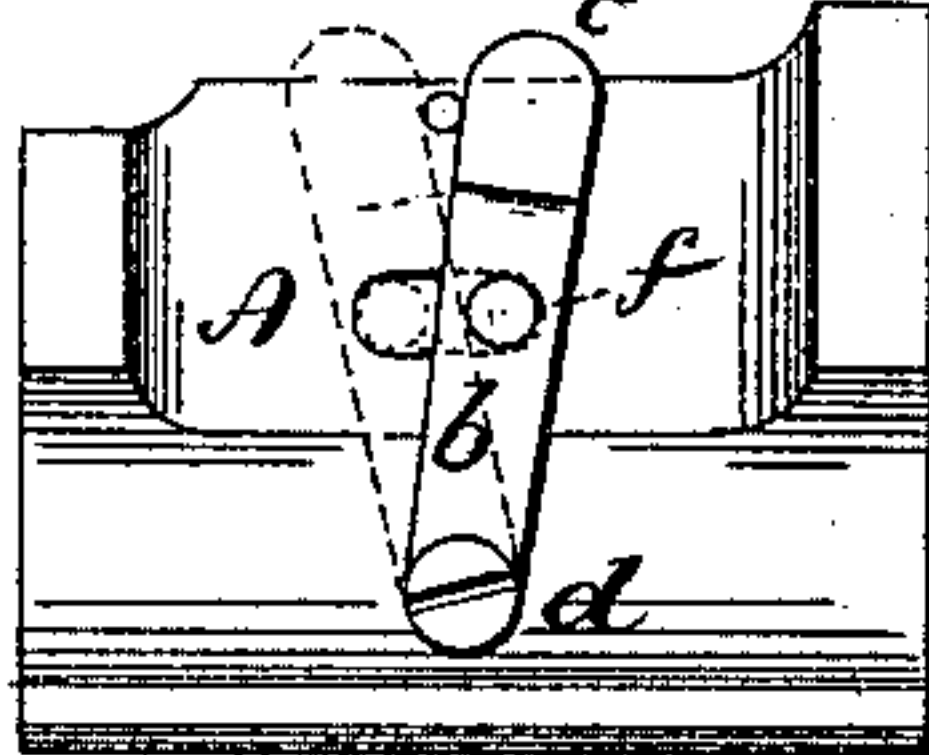


Fig 3

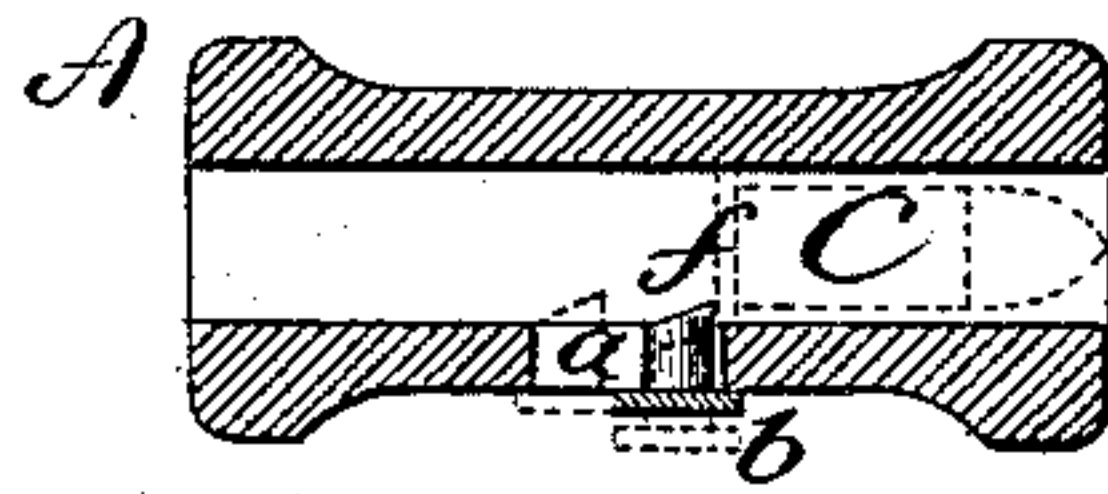


Fig 4

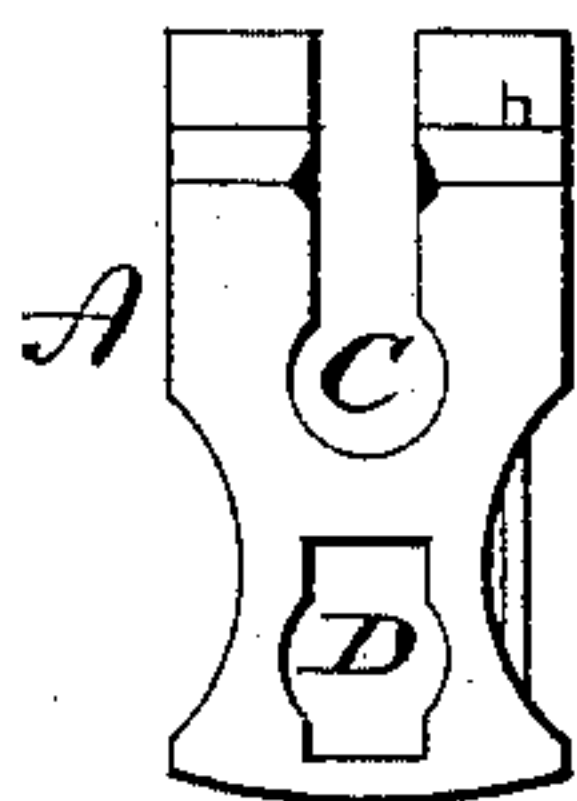


Fig 6

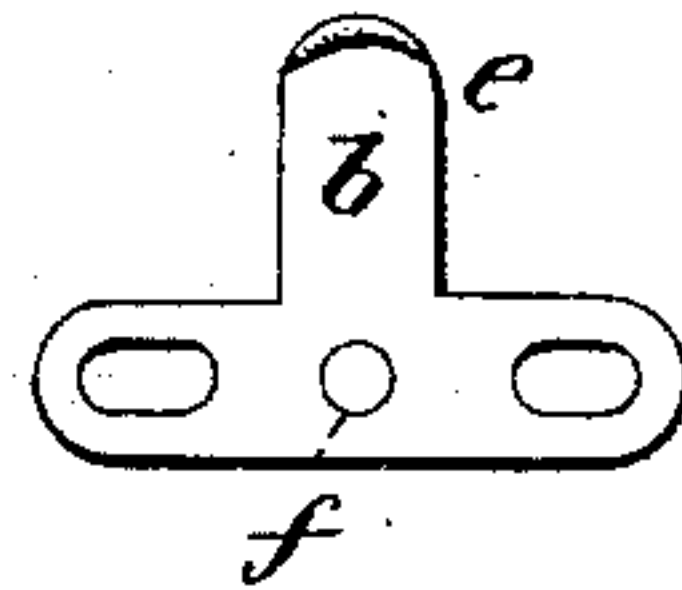
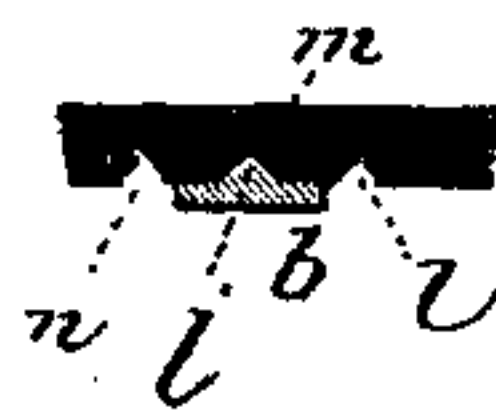


Fig 5



Witnesses
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UNITED STATES PATENT OFFICE.

ISAAC CURTIS AND LEANDER J. RUSSELL, OF NEW HAVEN, CONNECTICUT,
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MAGAZINE FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 316,880, dated April 28, 1885.

Application filed February 24, 1885. (No model.)

To all whom it may concern:

Be it known that we, ISAAC CURTIS and LEANDER J. RUSSELL, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Magazine Fire-Arms; and we do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a top view of that portion of the receiver immediately around the carrier-opening, and showing a top view of the carrier with the improvement attached. Fig. 2, a side view of the carrier detached. Fig. 3, a longitudinal section through the cartridge-receiving chamber of the carrier. Fig. 4, a rear end view of the carrier. Fig. 5, a section through the carrier above the slot, showing a modification of the stopping device to hold the adjustable stop at the different positions. Fig. 6, a modification of the spring-arm carrying the stop.

This invention relates to an improvement in that class of magazine fire-arms in which a carrier is arranged to move vertically up and down through the receiver to transfer the cartridge from the magazine beneath the barrel to a position in front of the open breech-piece, specially adapted to the arm known as the "Winchester" arm, the invention being specially adapted to the use of the smaller sizes of cartridge, such, for illustration, as 22s. These cartridges are made of various lengths. If a carrier be adapted to the longest cartridges, the last cartridge in the magazine will pass into the carrier and stop at the required position, so that as the carrier rises it will take the cartridge with it; but if the cartridges be shorter than such length, then not only will the last cartridge pass into the carrier, but the rear portion of the next cartridge will also enter, and thereby clog and prevent the movement of the carrier. It is therefore necessary to construct the arm with various

lengths of cartridge-chamber in the carrier-block, or devise some means for adjusting the carrier-block to receive different lengths of cartridges. Stops have been applied to adapt the carrier-block to different lengths of cartridges, but the stops for one length are required to be removed and a second stop added for a different length of cartridge. Such change requires several parts, and the removal of one part for the introduction of another.

The object of our invention is to provide the carrier with an adjustable stop which may be adapted to different lengths of cartridges, from the longest to the shortest, and it consists in an adjustable stop attached to the carrier, and entering the chamber in the carrier which receives the cartridge from the magazine, the adjustment of the stop permitting its being set at different distances from the forward end of the chamber, as more fully hereinafter described.

We illustrate the invention as applied to the carrier-block of the Winchester arm.

In the illustration A represents the carrier-block, which is of usual form, and arranged in the receiver B in the usual manner; C, the chamber in the carrier which receives the cartridge from the magazine; D, the opening in the receiver below into which the actuating-lever works. So far the construction of the carrier is of the usual form.

Through one side of the carrier a slot, *a*, is formed, opening into the chamber C, and upon the outside of the carrier is a spring-arm, *b*, hung to the carrier below the slot, as at *d*, and extending up so that its upper end projects slightly above the upper edge of the carrier, as at *e*. The arm *b* carries a stud, *f*, which projects through the slot *a* into the chamber C. The inner end of the stud is inclined backward and outward, the forward side of the stud forming a shoulder in the chamber, against which the head of a cartridge may strike as it comes from the magazine, and as seen in Fig. 3. This arm may be turned upon its pivot *d*, as from its extreme forward position, (seen in Fig. 2,) to the extreme

rear position, (seen in broken lines,) thereby moving the stud *f* from the position forward to a position farther to the rear, as indicated in broken lines, Fig. 3. The forward position is adapted for the shortest cartridge, and set in that position the block receives a cartridge from the magazine into the chamber C, the carrier raised to a position in front of the breech-piece, the breech-piece moves forward through the chamber to transfer the cartridge to the barrel. In this forward movement the breech-piece strikes the inclined end of the stud *f*, throwing it outward, as seen in broken lines Fig. 3, so that the breech-piece may readily pass the stud. As the carrier descends the stud returns into its position to form a stop for the next cartridge, which will enter it from the magazine.

Stops or catches should be provided to arrest and hold the arm *b* when it is turned into position for a given length of cartridge. Such a stop is provided in this case by the insertion of a stud, *h*, in the side of the carrier, projecting substantially the thickness of the arm *b*, and as seen in Figs. 1 and 2, so that the arm in its forward position will stand at one side of the stud, and thrown to the other extreme will stand upon the other side of the stud, as seen in Fig. 2, the stud thus forming a support for it at its two extremes.

If more than two variations in sizes of cartridges are desired, the catch may be made as seen in Fig. 5, by forming a point, *i*, on the arm *b*, and corresponding depressions, *l*, *m*, and *n*, in the side of the carrier, so that as the arm *b* is turned from one position to another the point will enter the corresponding depression and hold the arm to either position to which it may be set.

The upper end of the arm *e* projecting slightly above the upper edge of the carrier, as seen in Fig. 2, enables the arm to be moved when the carrier-block is in its up position, as in that position the upper end of the arm will be exposed through the opening in the receiver, as seen in Fig. 1, and so that the operator may manipulate the arm with his thumb and finger.

If cartridges are to be used of the longest character, and such as require the entire length of the chamber in the carrier, then the arm is moved to a position between its extremes, and so as to rest upon the stop for the arm, as seen in broken lines Fig. 1, which will hold the stud entirely outside of the chamber, and so that the cartridges coming from the magazine into the carrier may pass to the extreme rear.

Instead of hanging the arm upon a pivot, so as to swing, it may be formed as a slide, as seen in Fig. 6, on the side of the receiver, with an arm *b* projecting upward therefrom, but we prefer to hang the arm as upon a pivot.

We have so far described our invention as applied to the carrier-block of the Winchester arm, but such description will be sufficient to enable those skilled in the art to apply the

stop to known carriers of other classes of arms. We therefore do not wish to be understood as limiting our invention to the particular carrier described.

We claim—

1. In a carrier for magazine fire-arms, the combination therewith of a stop hung to the carrier-block and arranged in the chamber of the carrier which is adapted to receive a cartridge from the magazine, said stop made adjustable to different points in the length of the chamber, substantially as described, and whereby said carrier is adapted to the use of cartridges of various lengths.

2. A carrier, substantially such as described, for a magazine fire-arm, constructed with a slot through its side into the chamber which receives the cartridges from the magazine, combined with a stop hung to the carrier and arranged through said opening, and adapted to be adjusted to different positions with relation to the forward end of the breech-piece, substantially as described, and whereby the said carrier is adapted to the use of cartridges of various lengths.

3. In a magazine fire-arm, the combination of a carrier-block, A, having the chamber C longitudinally through it to receive the cartridges from the magazine, and constructed with a slot, *a*, through its side into said chamber, a spring-arm arranged upon the outside of the carrier-block, and made adjustable thereon in the direction of the length of the block, a stop on said arm extending through said slot into said chamber, and in which slot the said stud is made adjustable by the movement of the said arm, substantially as described.

4. In a magazine fire-arm, the combination of the carrier-block A, having a chamber, C, longitudinally through it to receive the cartridges from the magazine, and constructed with a slot, *a*, through its side into said chamber, a spring-arm arranged upon the outside of the carrier-block and carrying a stud, *f*, which extends through said slot *a* into said chamber C, and so as to form an adjustable stop within the said chamber C, and a stop adapted to hold the said arm at different positions, substantially as described.

5. In a magazine fire-arm, the combination of the carrier-block A, having a chamber, C, longitudinally through it to receive the cartridges from the magazine, and constructed with a slot, *a*, through its side into said chamber, a spring-arm arranged upon the outside of the carrier-block and carrying a stud, *f*, which extends through said slot *a* into said chamber C, and so as to form an adjustable stop within the said chamber C, and a stop adapted to hold the said arm at different positions, the said arm extending above the upper edge of the carrier-block, substantially as described.

6. In a magazine fire-arm, the combination of the carrier-block A, constructed with a longitudinal chamber, C, to receive cartridges from the magazine, and with a slot, *a*, through

its side into said chamber, a spring-arm, *b*, piv-
oted to said block upon its outside and below
said slot, its upper end extending above the
upper edge of the carrier and carrying a stud,
5 *f*, extending through said slot *a* into the said
chamber *C*, and so as to form a stop for car-
tridges entering said chamber from the maga-
zine, with a stop adapted to hold the said

arm at different positions, substantially as
described.

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