ELI WHITNEY.

Improvement in Breech-Loading Fire-Arms.

No. 115,997. Patented June 13, 1871.

fig. 1.

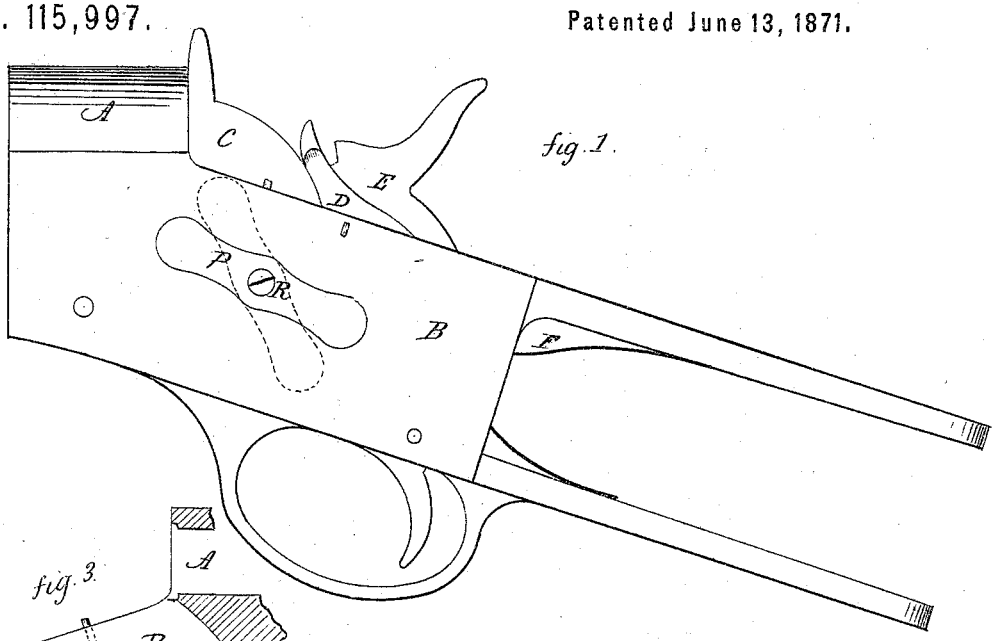


fig. 3.

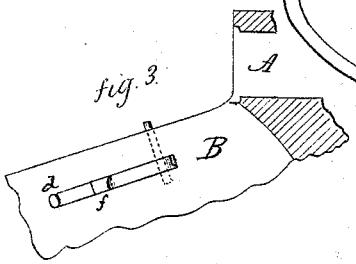


fig. 4

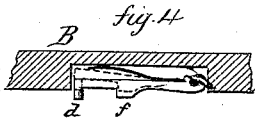


fig. 2

fig. 5

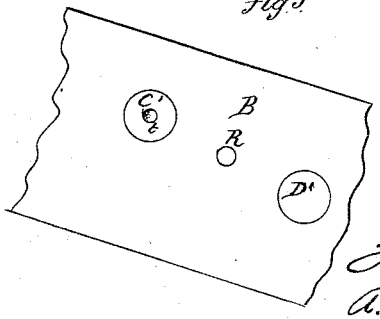
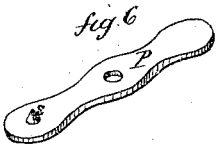


fig. 6



Witnesses
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UNITED STATES PATENT OFFICE.

ELI WHITNEY, OF NEW HAVEN, CONNECTICUT.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 115,997, dated June 13, 1871.

To all whom it may concern:

Be it known that I, ELI WHITNEY, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Breech-Loading Fire-Arms; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents, in—

Figure 1, a side view; Fig. 2, a longitudinal central section; and in Figs. 3, 4, 5, and 6, detached views.

This invention relates to an improvement in the arm invented by me, and patented March 21, 1871, in which a breech-piece is pivoted below the barrel to turn down from and so as to open the breech, and supported by a cam or holder when thrown up against the rear end of the barrel; and it consists, first, in the peculiar manner of tripping the device which holds the cam away from the breech-piece to permit the opening of the breech; second, in a device for securing the pivot-pins of the breech-piece and hammer.

A is the barrel; B, the frame, constructed in the usual manner for this class of arms. C is the breech-piece, pivoted at C′; D, the cam; and E, the hammer—the cam and hammer both hung upon the same pivot D′. The cam and breech-piece are constructed relatively to each other so that when the breech-piece is turned up against and so as to close the breech end of the barrel the cam D will, by the action of suitable springs F, be thrown forward beneath the breech-piece C, and form a support to retain it in that position, in substantially the same manner as my invention before referred to. For the purpose of forcing the breech-piece to its bearing, when from any cause it does not freely so return—as, for instance, when the cartridge sticks or does not freely pass into its position—I chamfer the nose of the cam, as at *a*, Fig. 2, the result of which is that the cam will enter beneath the breech-piece before it is quite hard against the barrel, and the cam will force the breech-piece to its place; or if from any cause this cannot be done, then the cam will be prevented from passing fully up to its place; consequently the hammer cannot strike the firing-pin of the breech-piece if it be thrown down. To retain the cam when drawn back, as denoted in broken lines, Fig. 2, in order to allow the charging of the arm, I arrange a latch, L, upon a pivot, *l*, which, when the cam is thrown back, as denoted by broken lines, Fig. 4, will catch in a notch, *n*, on the cam, and there hold the cam until the breech-piece is thrown down so as to strike upon and depress the latch, as denoted by broken lines, Fig. 2, which frees the cam and allows it to be thrown forward against the breech-piece, so that when the breech-piece is turned up to place the cam will be thrown below it, as seen in Fig. 2. The latch L is here represented as placed below the breech-piece, and so as to take hold of the lower edge of the cam. This may be arranged in the side of the frame, as seen in Fig. 4, a projection, *d*, formed upon the latch to project inward to catch into a recess or perforation, *b*, in the cam, and a second projection, *f*, formed upon the inside of the latch, so that when the breech-piece descends it will strike the said projection *f* and force the latch back into the frame, as denoted in Fig. 4, and free the cam, it being understood that the projection *d* enters the recess *b* in the cam when it is thrown back, in like manner as the latch L, before described, it being simply a change of position of the latch in the frame. To secure the pivots D′ C′ and prevent their accidental removal I arrange a plate, P, on the side of the frame from which the pivots are inserted, a sufficient length to extend onto the said pivots, and secured to the frame by a screw, R; and at one or both ends a projection, *s*, is formed, as in Fig. 6, to set into a corresponding depression, *t*, in the pivots, as in Fig. 5.

To remove the said pivots it is only necessary to loosen the screw R and turn the plate P to one side, as denoted by broken lines in Fig. 1, to uncover the pivots.

I claim as my invention—

1. In combination with the breech-piece C and cam D upon independent pivots, the latch

L, arranged in the frame to catch and hold the cam when thrown back, and tripped by the breech-piece to release the cam, substantially as described.

2. The arrangement of the plate R, provided with one or more projections, S, upon the frame, in the manner described, so as to retain the pivots C D in place, substantially as set forth.

ELI WHITNEY.

Witnesses:
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