

(No Model.)

L. L. HEPBURN.

2 Sheets—Sheet 1.

MAGAZINE GUN.

No. 354,059.

Patented Dec. 7, 1886.

Fig. 1.

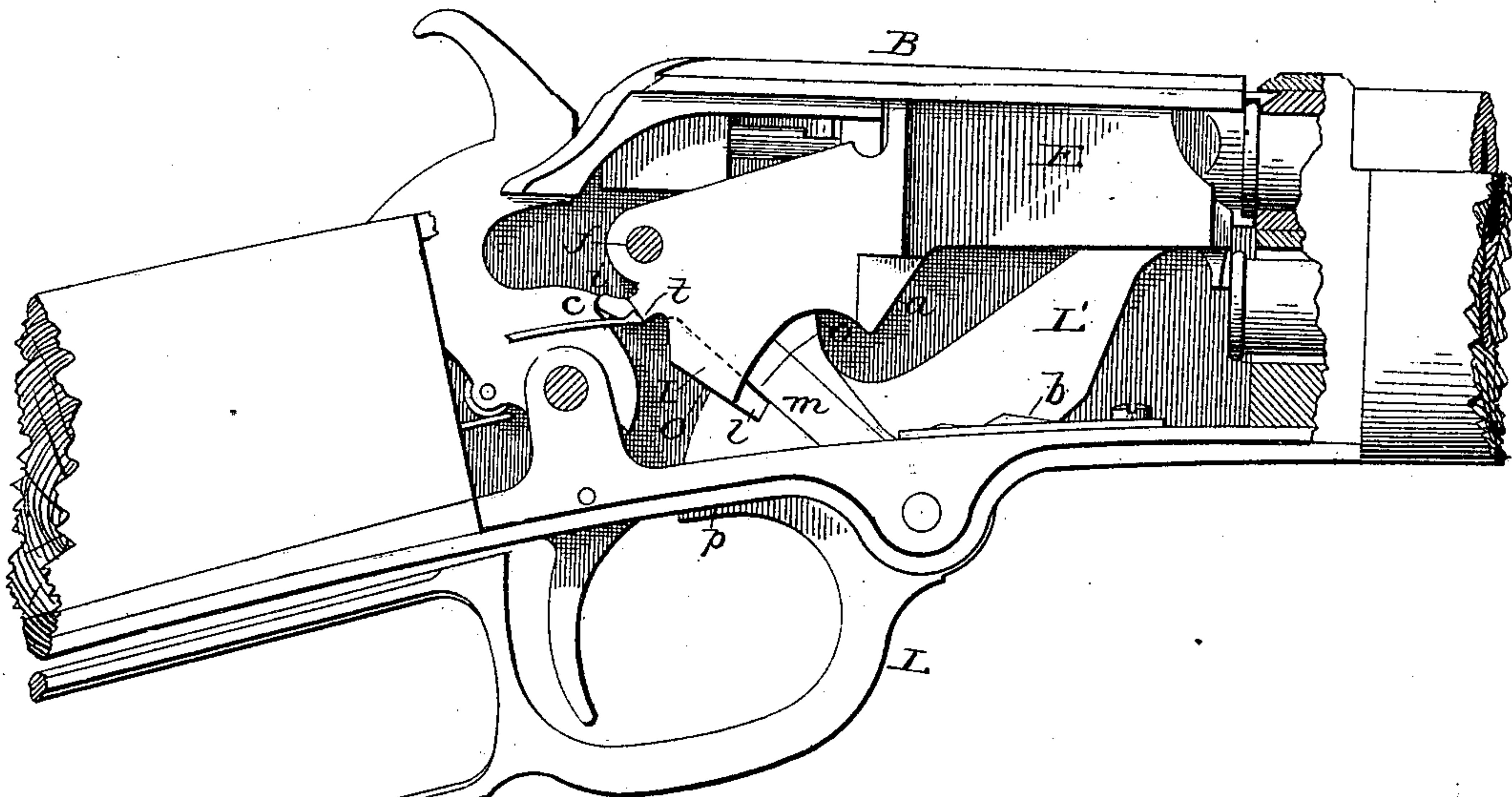
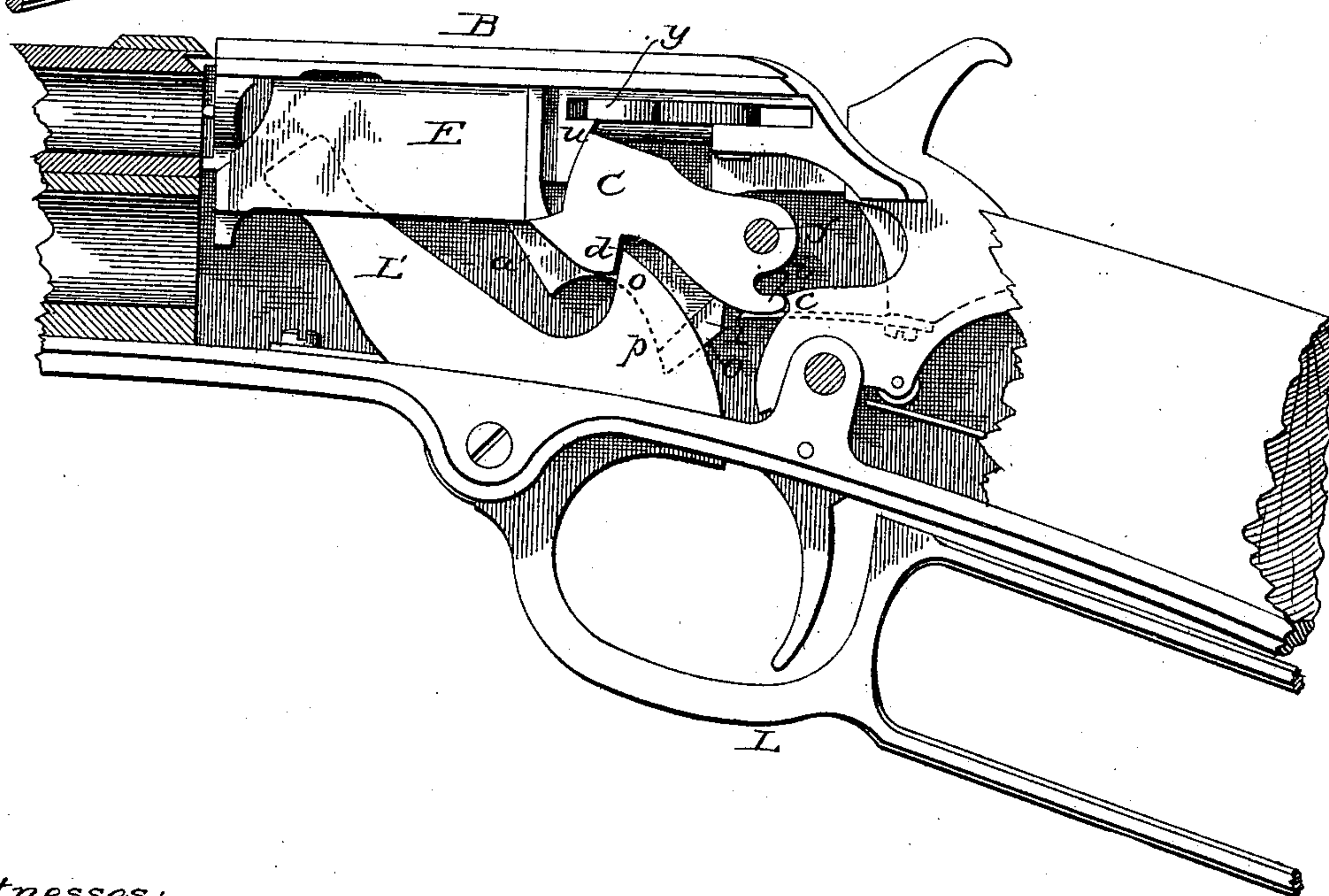


Fig. 2.



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Walter S. Dodge.

Inventor;  
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by Dodge & Son  
Atty.

(No Model.)

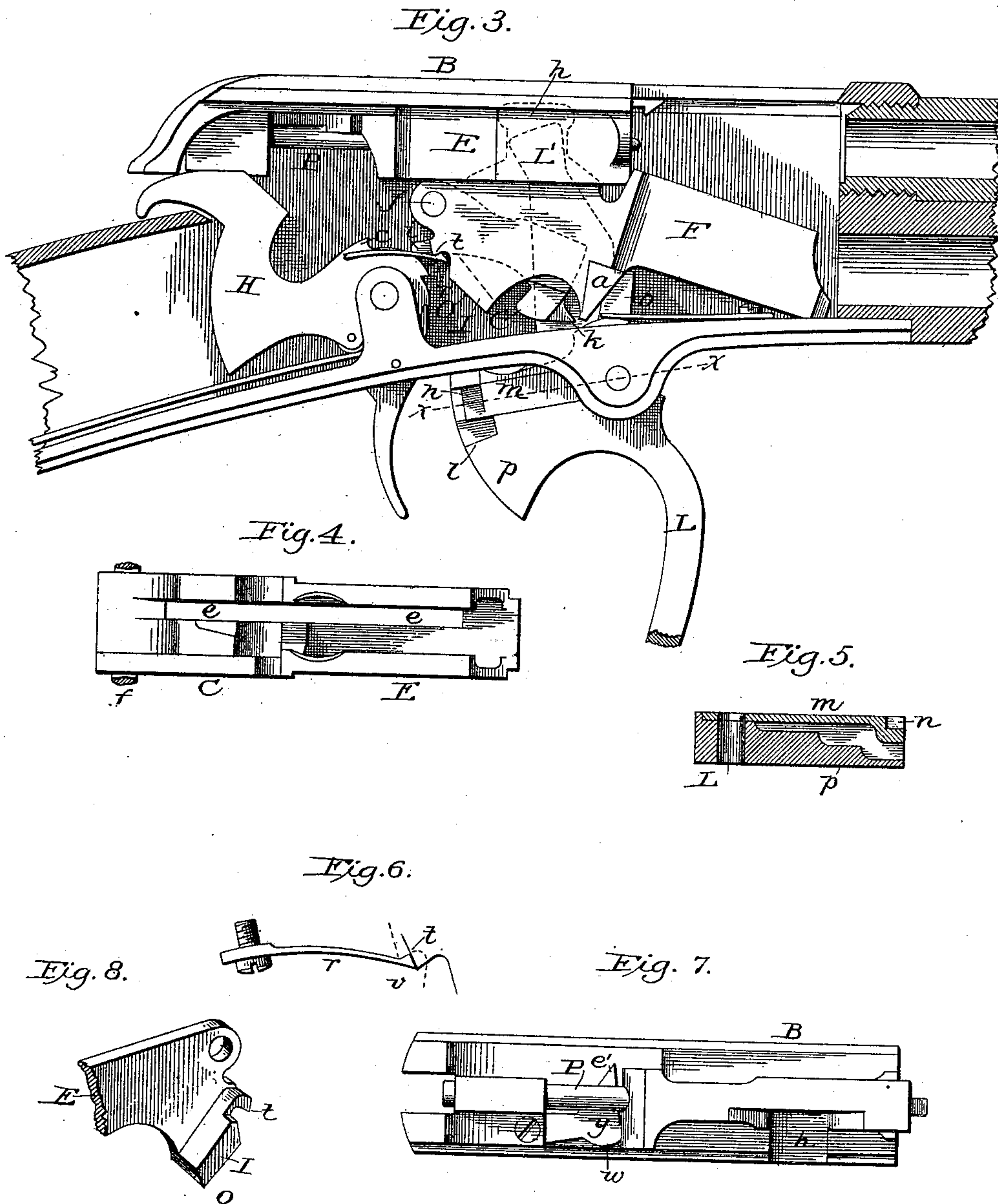
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# UNITED STATES PATENT OFFICE.

LEWIS L. HEPBURN, OF ILION, NEW YORK, ASSIGNOR TO THE MARLIN FIRE ARMS COMPANY, OF NEW HAVEN, CONNECTICUT.

## MAGAZINE-GUN.

SPECIFICATION forming part of Letters Patent No. 354,059, dated December 7, 1886.

Application filed July 29, 1886. Serial No. 209,478. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS L. HEPBURN, of Ilion, in the county of Herkimer and State of New York, have invented certain new and useful Improvements in Magazine-Guns, of which the following is a specification.

This invention relates to magazine-guns; and the invention consists in certain improvements on the gun for which Patent No. 298,377 was granted to me May 13, 1884, which said improvements are hereinafter specifically described and claimed.

Figure 1 is a side elevation of the breech portion of the gun with the side removed to show the mechanism. Fig. 2 is a similar view, looking from the opposite side, both these views showing the breech closed. Fig. 3 is a similar view to Fig. 1, showing the breech open and the carrier down. Fig. 4 is a top plan view of the carrier and locking-brace detached. Fig. 5 is a transverse section on the line  $x x$  of Fig. 3. Fig. 6 is an enlarged side view of the spring which assists to operate the carrier and hold it in position. Fig. 7 is a bottom plan view of the breech-block, showing the device for retracting the firing-pin, and Fig. 8 is a perspective view of a portion of the carrier.

The general plan of this gun is the same as that shown in my Patent No. 298,377, to which reference is made, and differs therefrom only in certain improvements or details, which I will now proceed to describe.

The sliding breech-block B and the arm L' of the operating-lever L are the same as in the former patent, except that the arm L', instead of being offset so as to pass up at one side of the carrier E, is offset but slightly, and works or moves in a slot,  $e$ . Fig. 4, which is cut vertically through the carrier E and brace C, the recess  $h$  in the breech-block, in which the end of arm L engages to move the block B to and fro, being correspondingly changed in its location.

The carrier E and the locking brace C are constructed substantially as in the former case; but the means for operating them are different. As shown in Fig. 1, the rear end of the carrier E is changed in form, and is provided

just below its pivot  $f$  with an inclined face, which terminates at its lower extremity with a V-shaped point,  $t$ , which bears on the free end of a spring,  $r$ , which is in like manner provided with a  $\Lambda$ -shaped projection,  $v$ , (shown more clearly in Fig. 6,) the relative position of these points  $t$  and  $v$  being as shown in Fig. 6, so that as the carrier is moved up and down the point  $t$  will pass alternately from one to the other side of the point  $v$ , the pressure of the spring, operating on these inclined surfaces, aiding to throw the carrier up or down after it has passed the central point, and also serving to hold it in either position, up or down, at the end of its movement. The extreme lower rear portion of the carrier is further changed by forming thereon another and longer inclined face,  $o$ , against which a shoulder,  $l$ , on the part  $p$  of lever L strikes, to hold the carrier up when the lever is closed, as shown in Fig. 1. On the opposite side of this part  $o$  there is formed a laterally-projecting lip, I, essentially the same as before, and as indicated by the dotted line in Fig. 1, the only difference being that in this case the lip I is formed entirely on the side and does not project below the lower edge of the carrier at that point, this portion of the carrier having been widened vertically to form the incline or face  $o$ , as above described, thus extending it down flush with the end of lip I, the latter being more fully shown in Fig. 8.

Instead of the sliding spring-catch  $m$ , formerly used to draw down the carrier, I now use a flat spring,  $m$ , which is set in a recess made in the side of the part  $p$  of lever L, as shown in Figs. 3 and 5, the fixed end of this spring  $m$  extending past the pivot-hole of the lever, and being broadened and provided with a hole corresponding with that through the lever, as shown in Fig. 5, so that the pivot-pin will pass through both, the lever being of such a thickness as to just fill the slot in the guard-strap in which it is pivoted, thus holding the spring  $m$  securely in place, with its outer surface flush with the surface of the lever when in its normal position, as represented in Fig. 5, the recess in the side of the lever being deepened toward its extremity, as



shown in Fig. 5, so as to give room for the free end of the spring to yield.

At its free end the spring *m* is provided with a solid enlargement, the outer face having an incline, *n*, formed thereon, as shown in Fig. 5, so that when the lever is closed this inclined face will impinge against the outer face of the lip *I* on the carrier, and, riding over it, will depress the spring until the spring has passed by the lip, when it will immediately spring out, thereby causing its back edge to engage with the lip *I*, ready to draw down the carrier at the first part of the downward or forward movement of the lever in opening the breech. The location and movement of these parts in this, as in my former gun, are such that by the time the carrier has reached or nearly reached the limit of its downward movement the end of the spring *m* will be drawn off of the front end of the lip *I*, thus leaving the lever free to continue its movement far enough to throw back the breech-block, and also throw up the carrier again. In the former case the carrier was raised by a stud, *O*, on the side of the lever striking against a latch, *G*, which was pivoted to the carrier. Instead of these devices, I now form a depending shoulder, *a*, on the under side of the carrier *E*, about midway of its length, and on the lever above its pivot *I* form a corresponding projection or shoulder, *b*, as shown in Figs. 1 and 3, both having their faces inclined, and being so arranged in relation to each other that the shoulder *b* will strike against the inclined face of shoulder *a* just before the lever has completed its downward movement, and thereby raise the carrier, the position of the parts being shown in Fig. 3 as just coming in contact before the carrier has commenced its upward movement. The locking-brace *C*, as before, has a lip, *h*, on one side only, however, which engages under the carrier, so that the brace cannot be raised until the carrier has been thrown up, and will be drawn down with the carrier. The brace is locked up by the upper shoulder, *o*, of the projection *p* of lever *L*, which moves forward under the brace, thereby raising it when down and bearing against the shoulder *d* on the brace, as shown in Fig. 2, the front end of the brace abutting against a shoulder, *u*, on the breech-block *B*, the same as in the former gun, and as shown in Fig. 2.

On the rear lower portion of the brace *C*, I make a projection, *i*, as shown in Figs. 1, 2, and 3, and on the hammer *H*, I make a shoulder, *c*, in such a position that when the brace is drawn down its projection *i* will engage against the shoulder *c* of the hammer and force the latter back to half-cock. This also prevents the hammer from swinging forward far enough to hit the firing-pin until the brace is thrown up and the breech securely locked. By thus relieving the breech-bolt of part of the labor of throwing back the hammer the manipulation of the gun is rendered more easy, and at the same time it is rendered se-

cure against premature discharge without the use of the compound trigger and safety device shown in my former patent.

As shown in Fig. 1, the face side of the projection *p* of lever *L* is cut away for a short distance below the spring *m* to form a shoulder, *l*, which, when the gun is closed ready for firing, rests against the inclined face *O* on the carrier, and thereby locks it up and holds it securely in position.

Instead of the elbow-lever which I formerly used to retract the firing-pin as the breech was opened, I now use a pivoted latch, *y*, as shown in Fig. 7, it being pivoted at its rear end to the under side of the rear extension of the breech-block *B*, and has at its front end a laterally-projecting incline, *e'*, which bears against a shoulder on the firing-pin *P* when the latch is pushed inward, thereby forcing back the firing-pin. This latch is operated by the means described in my former patent—that is, by its outer curved edge, *w*, coming in contact with the wall or side plate of the frame as the breech is moved backward, thereby forcing it inward and causing its incline to operate on the shoulder of the firing-pin and force it backward. A recess is formed in the wall or cheek-piece opposite the point occupied by the curved or projecting edge *w* when the breech is closed—in this the same as in my former gun—so as to permit the latch *y* to swing outward when the firing-pin is hit, the improvement in this particular consisting in the substitution of the latch *y*, with its incline, for the elbow-lever formerly used.

By these several improvements the gun is simplified in its construction, and is rendered more easy and smooth in its manipulation.

Having thus described my invention, what I claim is—

1. The combination, in a magazine-gun, of the slotted carrier *E*, pivoted to the breech-frame in rear of and above the pivot of the hand-lever *L*, and provided with the inclined shoulder *a* in advance of its pivot, with the lever *L*, having the shoulder *b* formed on it in front of its pivot, the said parts being arranged to operate substantially as described.

2. The pivoted carrier *E*, provided with the laterally-projecting lip *I*, in combination with the lever *L*, having the spring *m* set in a recess in the side of the lever, said parts being constructed and arranged to operate substantially as shown and described.

3. In combination with the reciprocating breech-block *B*, having the firing-pin *P*, mounted loosely therein, the latch *y*, pivoted to the breech-block, as shown, and provided at its free end with the inclined projection *e'*, arranged to engage with a shoulder on the firing-pin, and the curved projection *w*, which engages with the frame as the breech-block is drawn back for the purpose of retracting the firing-pin, as set forth.

4. The swinging locking-brace *C*, provided with the projection *i*, in combination with the



hammer H, provided with the shoulder *z*, said parts being constructed and arranged to operate substantially as and for the purpose set forth.

- 5 5. The combination, in a magazine-gun, of the pivoted swinging carrier E and brace C, both provided with a longitudinal slot, and the lever L, provided with an arm, L', ar-

ranged to pass through said slots and engage at its upper end with a recess, *h*, in the breech- 10 block B, substantially as shown and described.

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Witnesses:

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