

(No Model.)

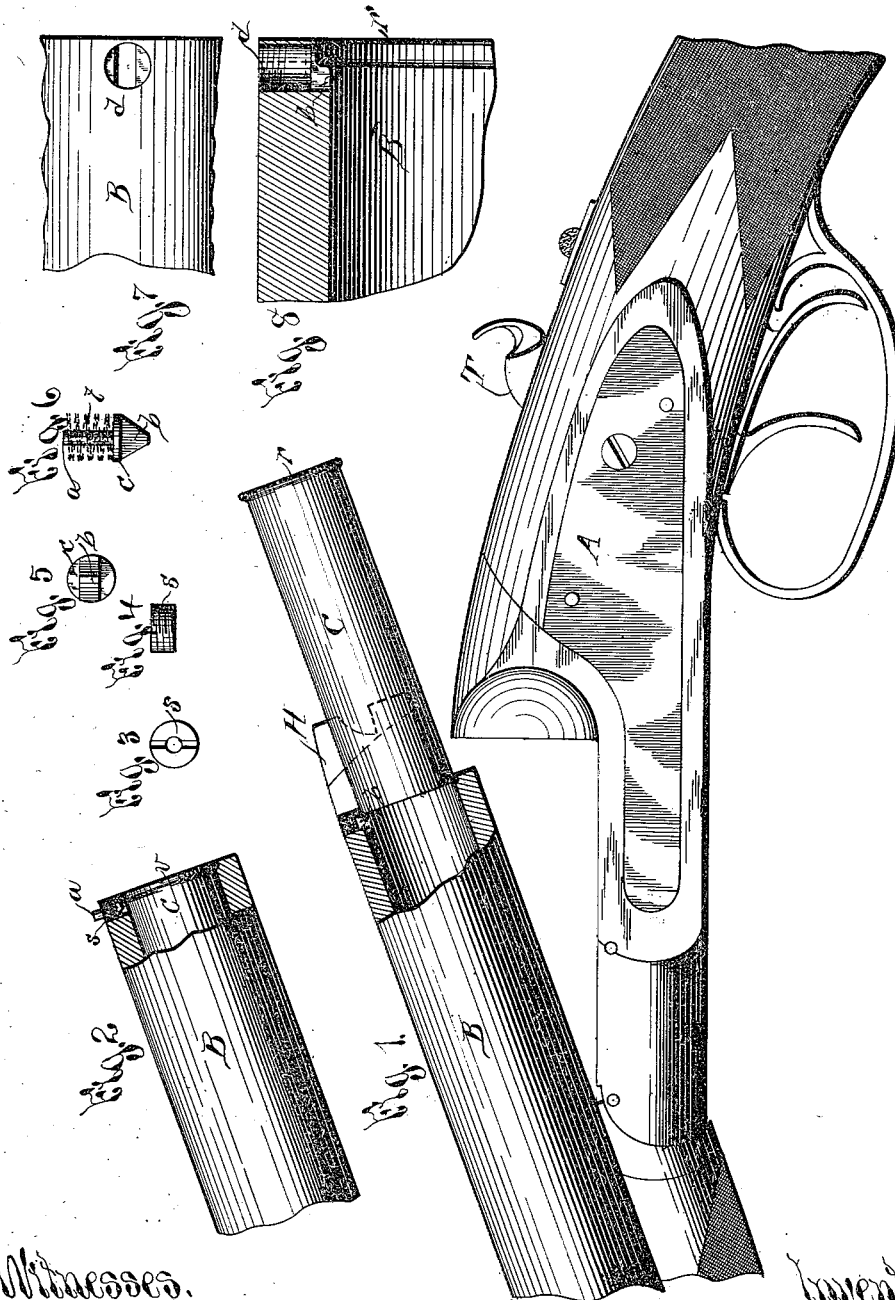
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D. M. LEFEVER.

CHARGE INDICATOR FOR BREECH LOADING FIRE ARMS.

No. 385,360.

Patented July 3, 1888.



Witnesses.  
Arthur C. Parsons,  
C. W. H. Brown,

Inventor.  
Daniel M. LeFever,  
Per Atty & Gibbs,  
Atty.

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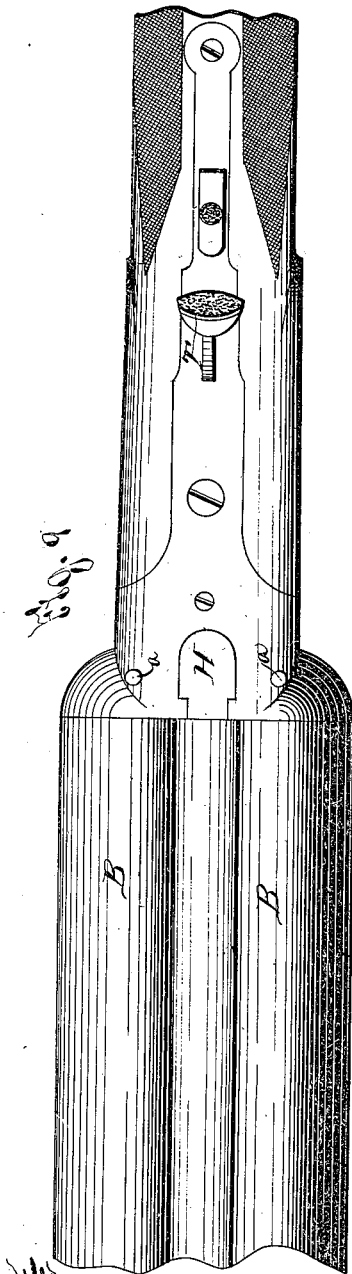
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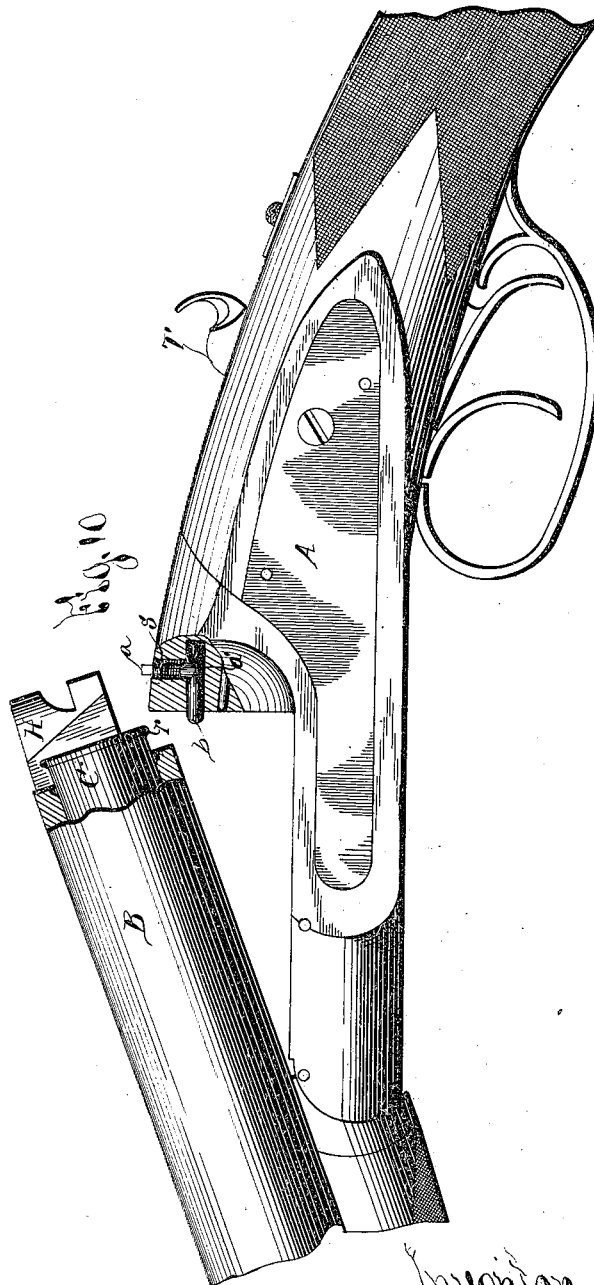
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# UNITED STATES PATENT OFFICE.

DANIEL M. LEFEVER, OF SYRACUSE, NEW YORK, ASSIGNOR TO THE  
LE FEVER ARMS COMPANY, OF SAME PLACE.

## CHARGE-INDICATOR FOR BREECH-LOADING FIRE-ARMS.

SPECIFICATION forming part of Letters Patent No. 385,360, dated July 3, 1888.

Application filed June 18, 1887. Serial No. 241,703. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL M. LEFEVER, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Breech-Loading Fire-Arms, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to improvements in that class of fire-arms termed "breech-loading," and has for its object the production of a simple and effective device for the purpose of indicating, without breaking the arm, the presence of a charge in the barrel or barrels thereof; and to this end the invention consists in combining with the arm an indicator operated by the insertion of the shell or cartridge to indicate that the arm is charged; also, in providing an indicator having an extension located in position on the arm to collide with the shell or cartridge as the same is inserted in the barrel or as the barrel is closed on the hinge-pin; and it furthermore consists in the detail, construction, and arrangement of the parts, all as hereinafter more fully described, and pointed out in the claims.

In specifying my invention reference is had to the accompanying drawings, forming a part of this specification, in which like letters indicate corresponding parts in all the views.

Figure 1 is a side elevation of a breech-loading fire-arm having my improvement connected therewith, the indicator, in this example of my invention, being located at the rear end of the barrel in position to collide with the shell or cartridge as it is pushed home in the barrel, and thereby be operated to indicate on the exterior of the barrel that the said barrel of the arm is charged. Fig. 2 is a detached view of the barrel, showing the cartridge pushed home therein and the indicator device protruding above the barrel. Fig. 3 is an enlarged detached plan view of the screw which serves to hold the operating-spring in place in the barrel of the arm. Fig. 4 is a side elevation showing an enlarged detached view of the aforesaid screw. Fig. 5 is an enlarged detached bottom plan view of the indicator-pin, illustrating the construction of the inclined end and the flange which supports the lower

end of the operating-spring. Fig. 6 is an enlarged detached side elevation of the indicator-pin and the spiral or operating spring in their relative arrangement, illustrating more fully the construction and arrangement of the said indicator. Fig. 7 is an enlarged detached top plan of the barrel, showing the orifice at the rear end thereof into which the indicator-pin is mounted. Fig. 8 is an enlarged sectional view through the barrel, illustrating the orifice in the barrel to receive the indicator and its operating parts. Fig. 9 is a top plan view showing my improvement applied to a double-barreled arm in a modified construction; and Fig. 10 illustrates a side elevation of a breech-loading arm; the breech thereof being in section, illustrates the modified construction shown in top plan in Fig. 9.

A represents the breech of a breech-loading fire-arm. B represents the barrels of the arm, and C the cartridge about to be inserted in the barrel. These parts are of the usual construction.

H is a top fastener for locking two barrels to the breech, and T is a thumb-piece or lever which operates the action. These parts may be of any desirable form and construction.

At the rear end of the barrel B, I provide the orifice *d*, which extends part way through the material of the barrel, and is slotted or drifted through at *e*, as best shown in the top plan view, Fig. 9. Into the orifice thus provided I mount the indicator-pin *a*, which is constructed, preferably, as best shown in Fig. 6, in which the indicator-pin *a* is shown provided with the circular-shaped flange *c*, which is of suitable dimensions to enter the orifice *d* in the barrel freely and rest at the bottom thereof, while the inclined extension *b* is flattened at its sides, as shown in the inverted bottom plan view, Fig. 5, passes through the slot or drift *e*, Fig. 9, and protrudes on the interior of the barrel in position to be collided with by the cartridge C as the same is inserted and shoved home in the barrel B.

The spiral *t* is slipped over the indicator-pin *a*, as best shown in Fig. 6, and a screw, *s*, is screwed in the orifice *d*, which is also provided with a screw-thread, and the screw *s* compresses the spiral *t*, thereby tensioning the

spiral *t* to compress the indicator *a* and to restrain the same normally in the position best shown in Fig. 1.

It will be observed upon reference to Fig. 1 that as the shell or cartridge *C* is inserted in the barrel the shell collides with the inclined end *b* of the indicator end *a* and forces the indicator *a* upward, and that when the rim *r* of the cartridge is home in its seat *r'* in the barrel the rim *r* elevates the indicator *a* so that the indicator protrudes above the barrel, as best shown in Fig. 2. It will thus be apparent that when the barrel *B* is charged by the insertion of a shell or cartridge, *C*, this fact is indicated by the protrusion of the indicator *a* above the barrel, as shown in the aforesaid view, Fig. 2. My improvement will, therefore, be seen to provide an indicator in a breech-loading fire-arm which invariably indicates the fact that the shell or cartridge is present in the barrel or barrels of the arm, since the device may be applied to both barrels, and that therefore it is unnecessary to provide the expensive safety appliances which in the arms heretofore produced are complicated and ineffective to secure the desired result in providing means of this character, a great advantage of my improvement residing in the fact that when the arm is taken up the presence of a load therein is made apparent at once by the protrusion of the indicator *a* above the barrel; hence an effective means for the prevention of accidental discharges is provided, since the person handling the arm is immediately made aware of the fact that the arm is charged by the said indicator, and therefore warned to be careful in handling the arm.

Furthermore, my improvement is of great value in the use of breech-loading arms for trap-shooting, since mistakes in pulling the wrong trigger in arms of the so-called "hammerless" class is prevented, as the indicator invariably tells which barrel is charged or loaded.

It will be observed upon reference to the enlarged sectional view, Fig. 8, that I preferably locate the extension *b*, as shown by the dotted lines therein, in close proximity to the chamber *R*, into which the rim *r* of the shell sits when forced home in the barrel *B*. I do not, however, restrict myself to the precise construction and arrangement of the parts as illustrated and described in the foregoing, which

is my preferred plan of construction, since the orifice or recesses may be formed in the breech-block, as shown in Figs. 9 and 10, and the extension *b* may consist of a separate pin, as shown in Fig. 10, which protrudes in the path of the rim *r* of the cartridge *C* when the barrel *B* is forced home, as the barrels are closed in the operation of loading the same. For this form of construction it will be observed that the indicator-pin *a* is provided with an inclined end, as in the construction illustrated in Fig. 6, and that the extension *b* is constructed with an incline on its inner end, which forces up the indicator *a* against the compression of the spiral *t* when the rim *r* of the shell *C* collides with the extension *b* in closing the arm, as previously stated.

At Fig. 9 I have illustrated the modified construction applied to a double-barreled arm, and the same will be readily understood upon reference to the drawings.

The operation of my invention will also be apparent from the foregoing, and the invention is extremely simple and effective in accomplishing the desired result.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the barrel of a breech-loading fire-arm formed with a recess in its rear end, separated by a perforated web of metal from the base, of an indicator-pin having an inclined end projected into said base, a spring seated in the recess to bear on the indicator, and a screw-cap for holding the spring in place, perforated for the passage of the stem of the indicator, substantially as and for the purpose set forth.

2. The combination, with the barrel *B*, formed with a recess, *d*, having a slotted bottom web, of the indicator *a*, formed with the shouldered spring-seat *c* and inclined extension *b*, the spring *t*, and the confining screw-cap *s*, all constructed and arranged for use substantially as and for the purpose set forth.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 14th day of June, 1887.

DANIEL M. LEFEVER.

Witnesses:

FREDERICK H. GIBBS,  
E. C. CANNON.