

(No Model.)

W. H. DAVENPORT.
Breech Loading Fire Arm.
No. 237,432. Patented Feb. 8, 1881.

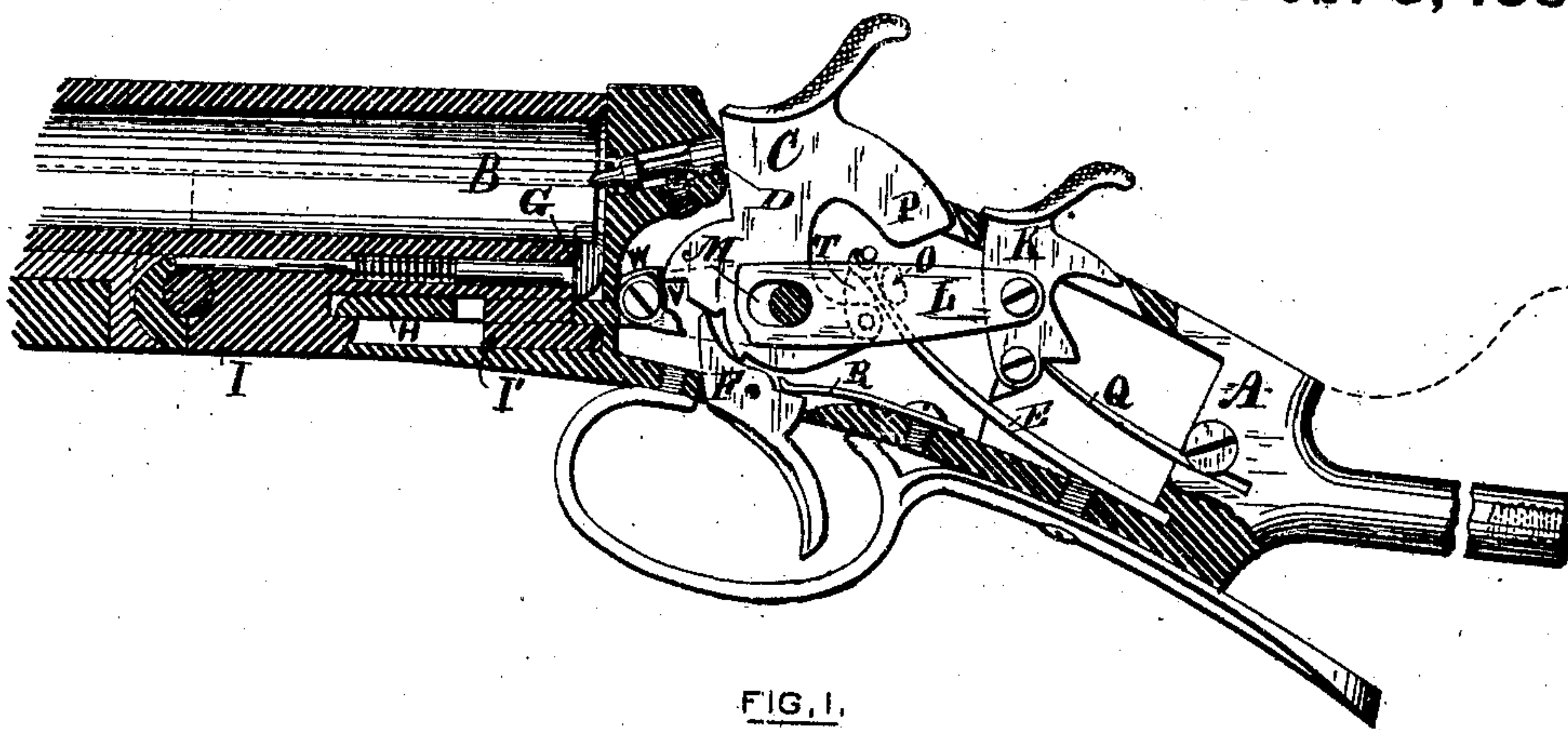


FIG. 1.

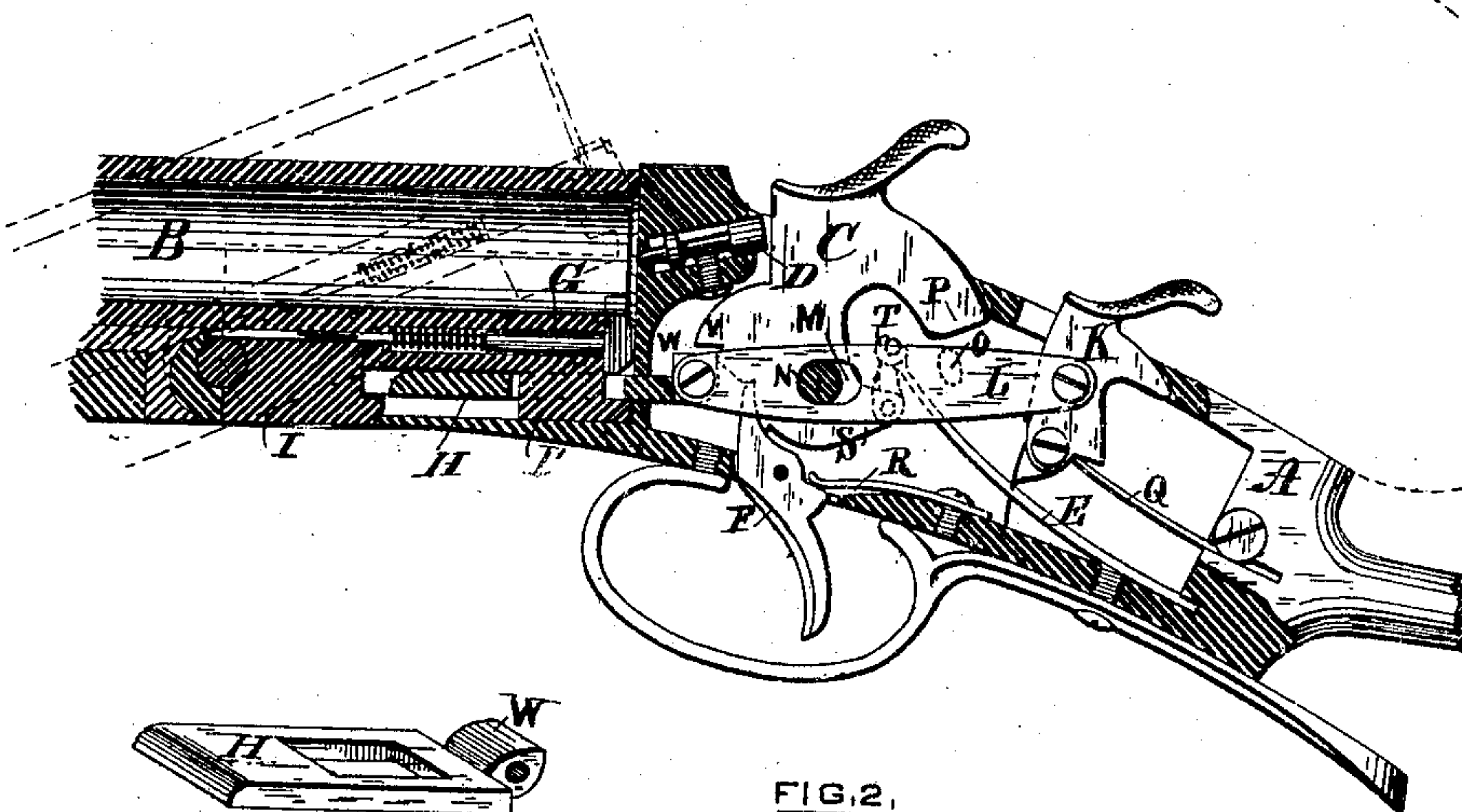


FIG. 2.

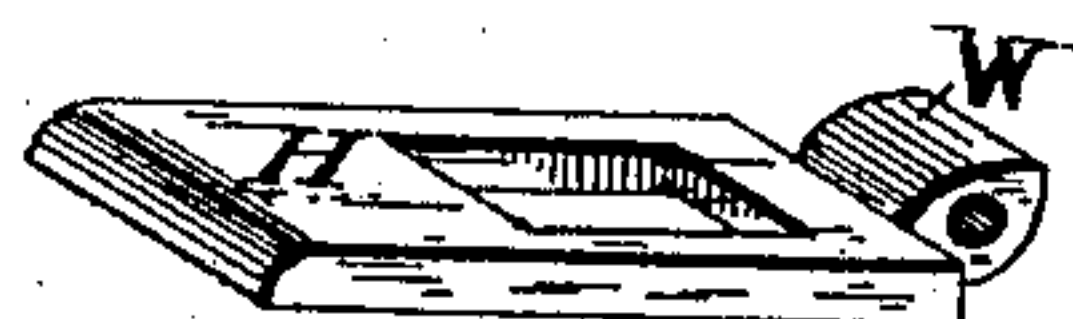


FIG. 4.

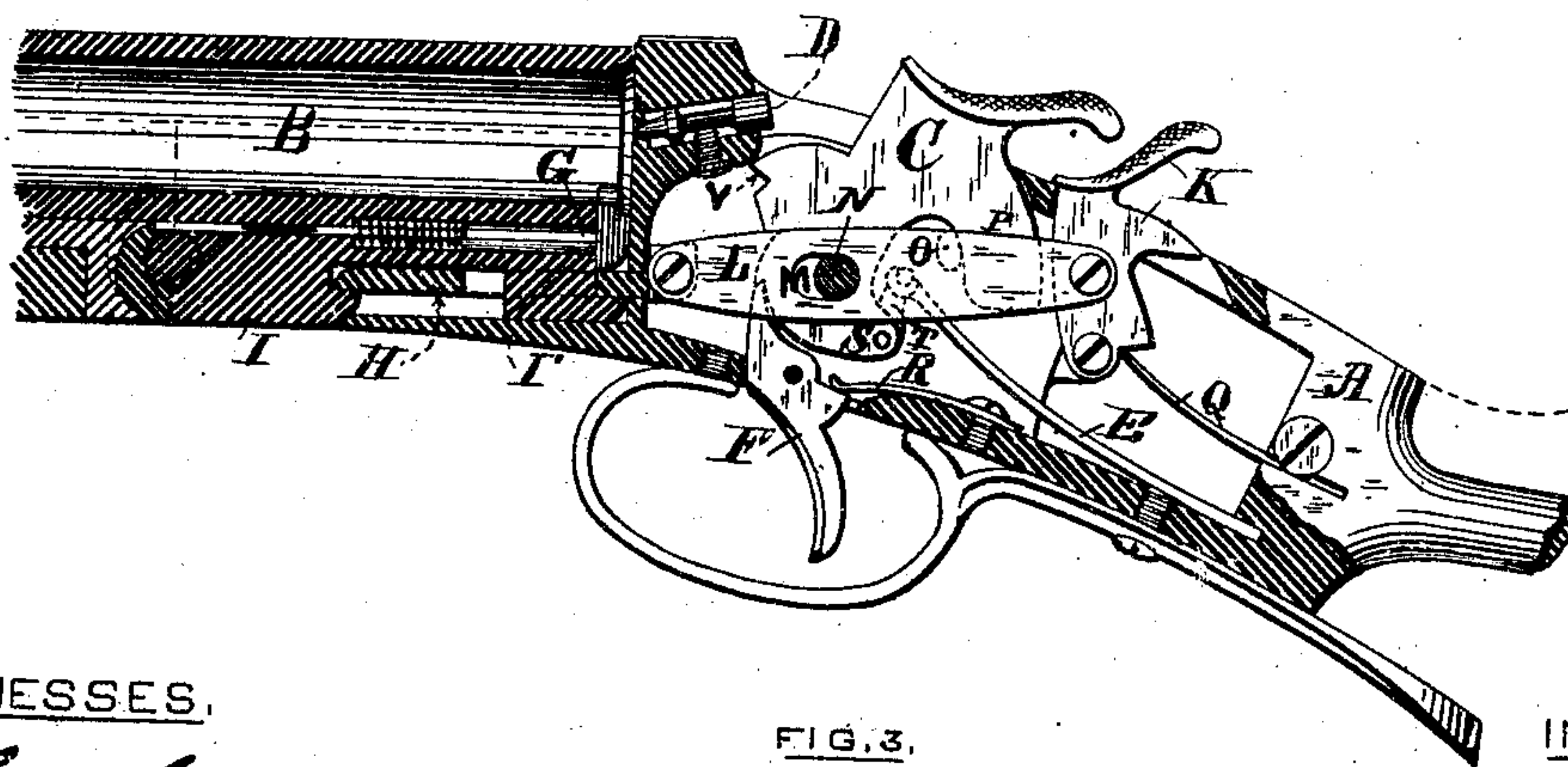


FIG. 3.

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WILLIAM H. DAVENPORT, OF PROVIDENCE, RHODE ISLAND.

BREECH-LOADING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 237,432, dated February 8, 1881.

Application filed September 16, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. DAVENPORT, of Providence, in the State of Rhode Island, have made certain new and useful Improvements in Breech-Loading Fire-Arms; and I do hereby declare that the following specification, taken in connection with the drawings making a part of the same, is a full, clear, and exact description thereof.

Figure 1 is a section of the breech and lock-frame, showing the position of the mechanism with the hammer in contact with the firing-pin. Fig. 2 is a section of same, showing position of mechanism with the piece at half-cock. Fig. 3 is a section of same, showing position of the mechanism with the piece at full-cock. Fig. 4 is the locking-bolt.

My improvements relate to the mechanism for rebounding the hammer of the piece, and for locking and unlocking the barrel, and have for their object the better securing of the latter, and the easier, quicker, and more convenient release thereof.

A, Figs. 1 and 2, is a section of the lock-frame, which is made whole without removable sides, and with a suitable interior chamber for the reception of the lock mechanism, and provided with grooves and bosses for the support of the several parts.

B is a section of the barrel, which is hinged to the end of the frame A to secure the upward movement of the breech for the insertion of the cartridge.

C is the hammer, which works through a central slot in the breech-block.

D is the firing-pin, which projects through the center of the breech-block.

E is the mainspring; F, the trigger, and G the cartridge-extractor.

H is a locking-bolt, held in longitudinal grooves upon the inner side of the frame, and working therein to engage and disengage the lugs I I' upon the under side of the barrel.

K is a thumb-lever, projecting through a slot in the frame A, in the rear of the hammer C, and, through the connecting link or bar L, operates the locking-bolt H by the action of the hand, similar to that required for cocking the piece. The link L is provided with a slot,

M, which works upon the center bolt, N. and

with a pin or lug, O, to engage the arm P of the hammer.

Q is a spring for throwing forward the lever K.

Having described the several parts of my invention, I will now proceed to describe their combined operation, commencing with the mechanism in the position shown in Fig. 3—that is, the piece at full-cock. To discharge the piece, the trigger F is subjected to a pressure sufficient to overcome the resistance of the spring R and release the hammer C, which brings into action the mainspring E. The mainspring E is connected to the arm S of the hammer C by a stirrup, T, an open bearing being made in the end of the spring E for the reception of the laterally-projecting pins. As soon as the mainspring E is thus brought into action, it suddenly lifts the arm S of the hammer, and at the same time carries forward the top of the same with great force until it strikes against the firing-pin D, as shown in Fig. 1, and discharges the piece. The mainspring E does not, however, follow the hammer during the whole of its forward movement, but is arrested, as the latter approaches the completion of its stroke, by coming in contact with the pin or lug O upon the link L, as shown in Fig. 1. The projecting pins of the stirrup T are free, however, to leave their bearings in the end of the spring E, so that the hammer C is not arrested in its forward movement, but completes it by the momentum already acquired. The hammer C, being thus freed from the pressure of the spring E at the proper time, will, through the concussion of its blow upon the firing-pin D, aided by the backward pressure of the trigger F, exerted through the spring R, be caused to rebound to the position of half-cock, as shown in Fig. 2. As the hammer completes its rebounding movement its connection with the mainspring E is re-established by the return of the pins of the stirrup T to their bearings, before described, as shown in Fig. 2, and the piece is ready to be again brought to a full-cock, as shown in Fig. 3. The piece having been discharged and brought to a half-cock, as described, the lever K is pressed back, and, through the link L, draws back the locking-bolt H until the latter clears the lugs I I'

upon the under side of the barrel, all as shown in Fig. 2, the movement of the link L in either direction being limited by the slot M. The barrel is now unlocked, and with a slight pressure of the hand may be tipped to receive a new cartridge, as shown by the dotted lines, Fig. 2, and after the insertion of the same it may be again locked by bringing it back to its former position and removing the pressure from the lever K, which will then be thrown forward by the spring Q, and through the link L slide the bolt H to engage the lugs I I'. While the parts remain in the position described and shown in Fig. 2 the barrel is capable of being unlocked and locked in the manner set forth. Now, taking the parts in the position as shown in Fig. 2, (except the locking-bolt H, which fully engages the lugs I I', as shown in Figs. 1 and 3,) if it is desired to discharge the piece the hammer C is drawn back to a full-cock, as shown in Fig. 3. During such backward movement the arm P of the hammer C passes over and behind the pin or lug O, which securely locks the bolt H in its place by preventing any movement of the link L, as will be readily seen. Upon the discharge of the piece, the pin or lug O is released by the forward movement of the hammer, but the bolt H is again securely locked before the hammer C comes in contact with the firing-pin D by the projection V upon the hammer, which drops behind the ear W of the bolt H, and

renders the withdrawal of the latter impossible until the rebound has carried the piece again to a half-cock. While the barrel remains unlocked the piece cannot be brought to a full-cock, the arm P of the hammer C coming in contact with the pin or lug O. 35

It will now be readily seen that the bolt H can only be withdrawn when the piece is at half-cock, and that both at full-cock and at the instant of explosion it is secured beyond the possibility of removal, either by accident or by pressure upon the snap K. 40

What I claim as my invention, and desire to secure by Letters Patent, is— 45

1. The combination of the link L, having lug O, bolt H, lever K, and hammer C, having arm P, as set forth.

2. The combination of the hammer C, having projection V, link L, having lug O, bolt H, having ear W, and lever K, as set forth. 50

3. The combination of link L, having lug O, hammer C, having arm P and projection V, bolt H, having ear W, and a lever, K, as set forth. 55

4. The combination of hammer C, having arm S, stirrup T, spring E, link L, having lug O, trigger F, and spring R, as set forth.

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Witnesses:

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