

(No Model.)

F. W. HOOD.
LOCK FOR FIRE ARMS.

No. 316,622.

Patented Apr. 28, 1885.

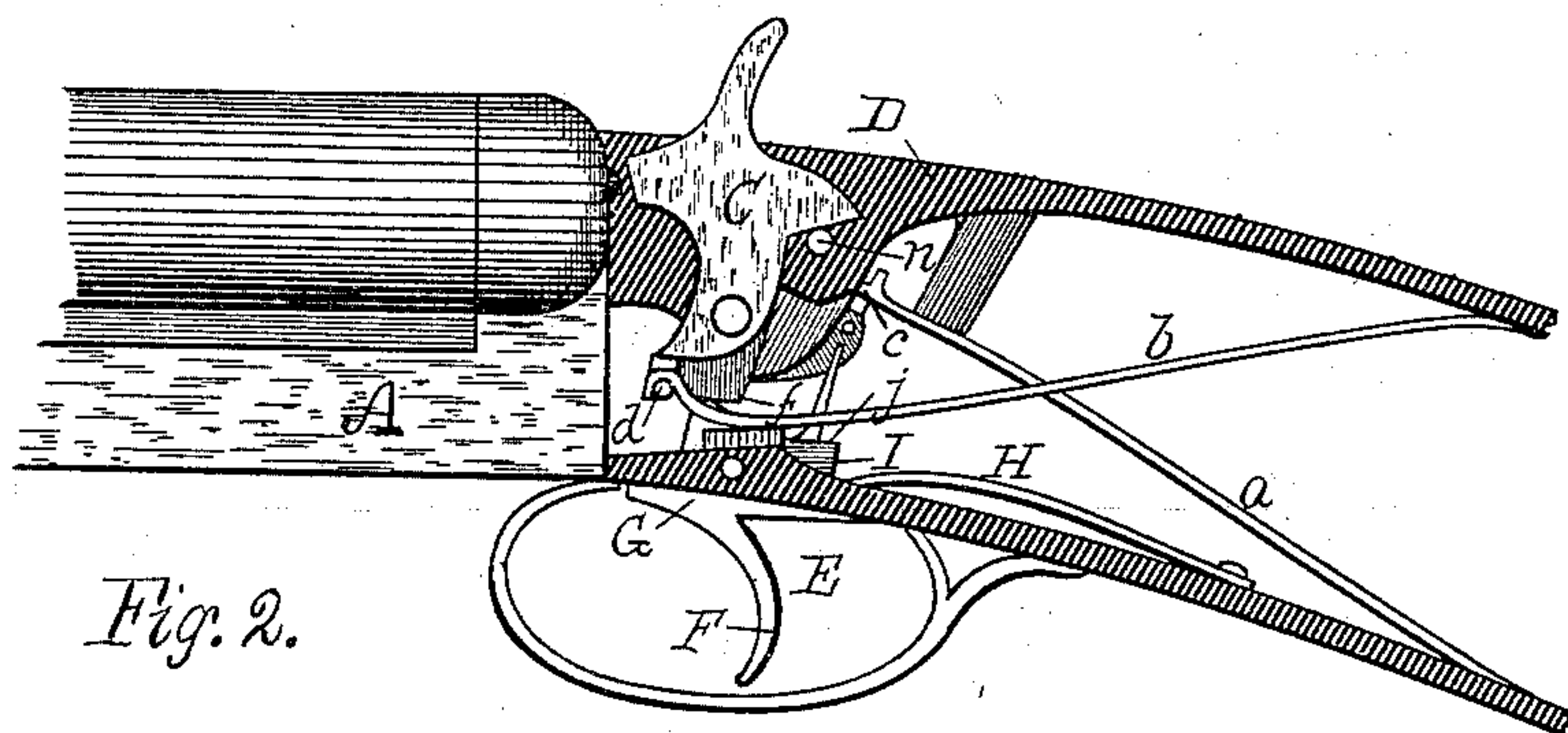


Fig. 2.

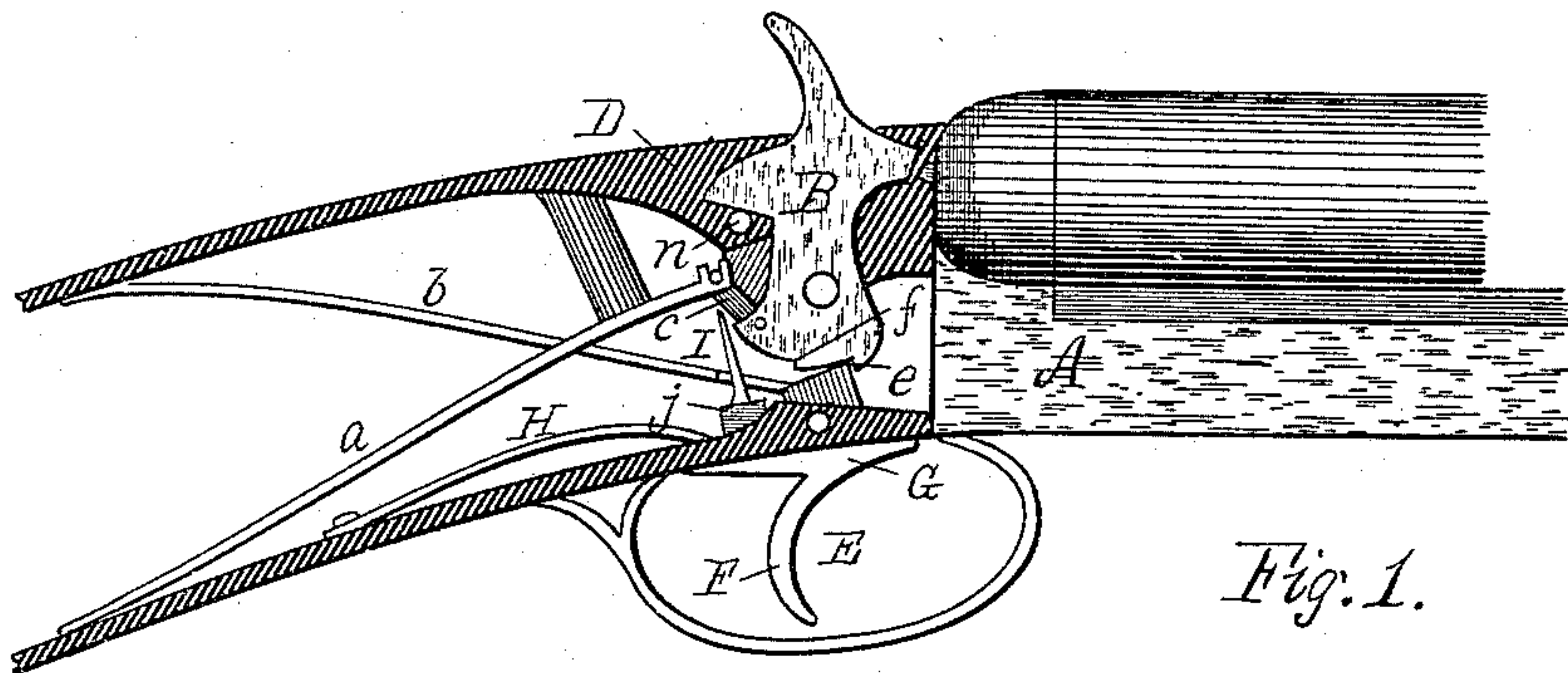


Fig. 1.

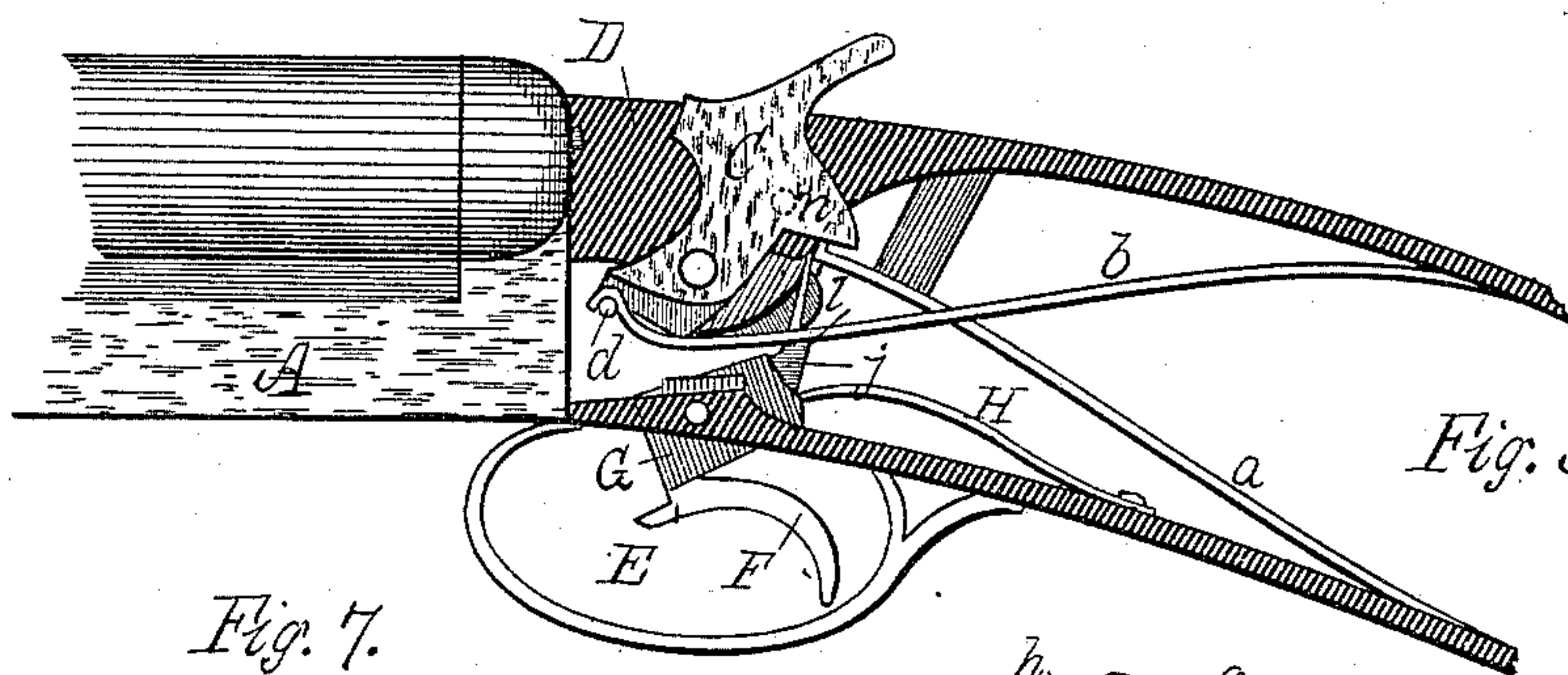


Fig. 3.

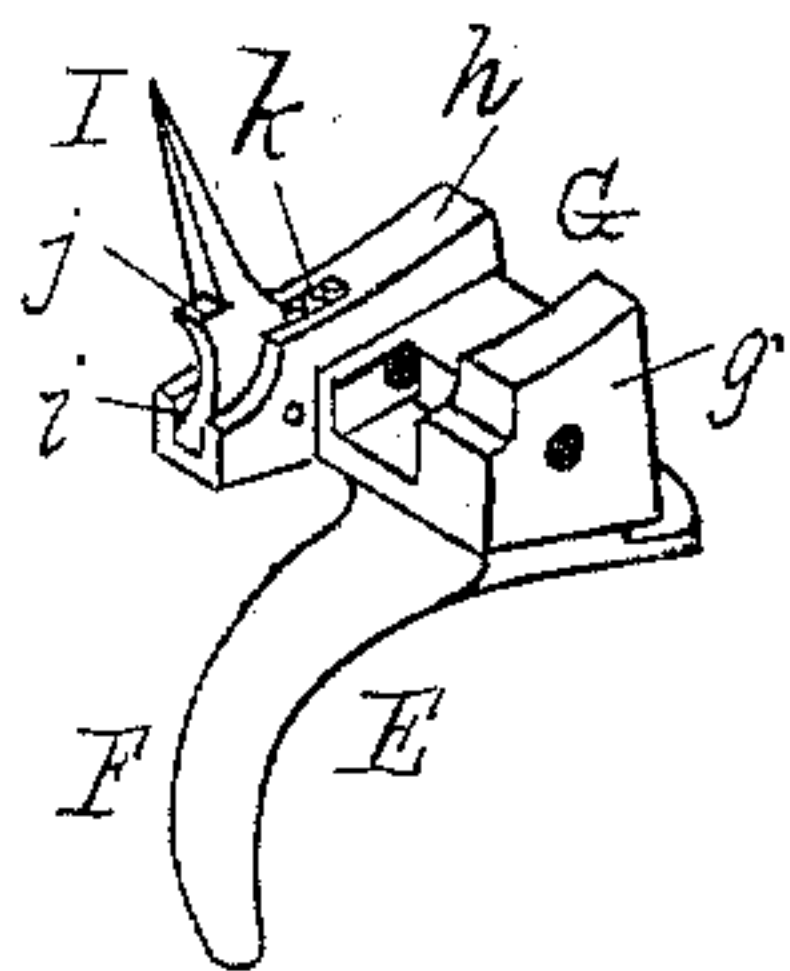


Fig. 4.

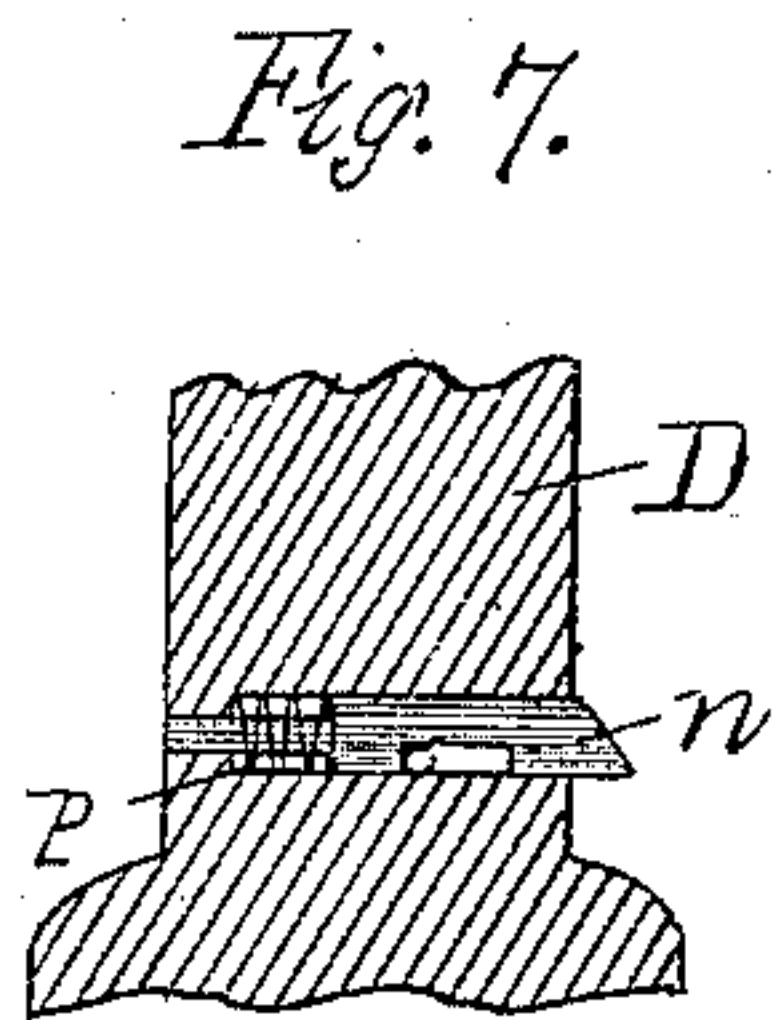


Fig. 7.

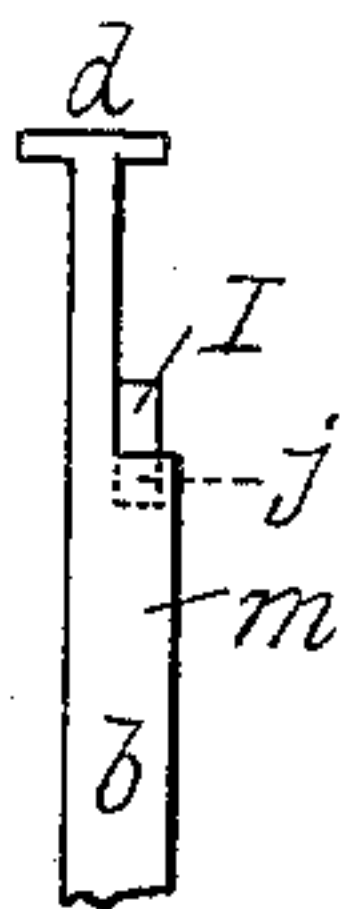


Fig. 6.

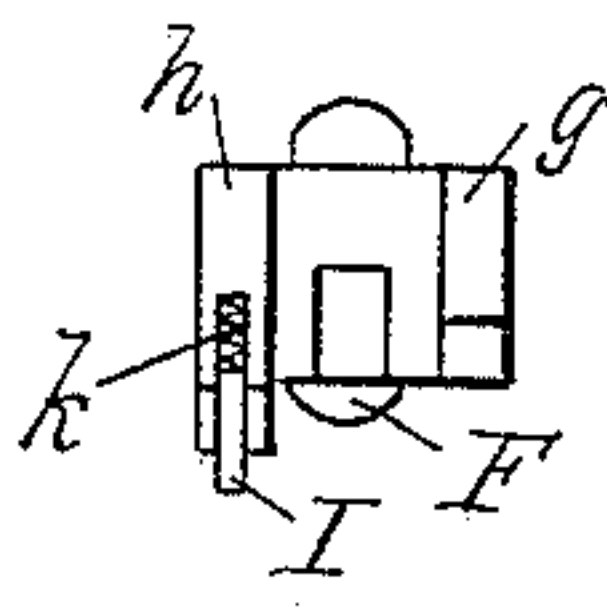


Fig: 5.

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LOCK FOR FIRE-ARMS.

SPECIFICATION forming part of Letters Patent No. 316,622, dated April 28, 1885.

Application filed January 26, 1885. (No model.)

To all whom it may concern:

Be it known that I, FREEMAN WESTON HOOD, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Locks for Fire-Arms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to locks for breech-loading fire-arms, especially double-barreled shot-guns, for sporting or other purposes; and it consists in means whereby but one trigger is employed for both hammers, and the latter may be operated separately and independently of each other, as in ordinary shot-guns with two triggers; or, if desired, according to existing circumstances and the wants of the sportsman, both hammers may be released rapidly one after the other, in order to effect two closely-following successive discharges of the weapon. The interval, however, between the release of the two hammers, when operated in conjunction, is optional with the person using the gun, as he may discharge it in rapid succession or not, as he pleases.

My improvements consist, as before premised, in the use of the single trigger, and, furthermore, in connection therewith, of two hammers, the right-hand one of which is provided with "single-action" and the other or left one with "double-action" lock, so called. Furthermore, I dispense with the sear usually employed, and construct the trigger bifurcated upon its upper or lever portion to engage with the notched lower parts of the hammers, which office hitherto has been performed by the tumbler. Thus by mechanism to be more fully described I am enabled to use each hammer independently of the other, while, if so desired, the two may be released almost simultaneously. For instance, suppose the right-hand hammer is at full-cock, the trigger is pulled and the hammer released, when the right barrel is discharged. A further continuous pull now cocks the left hammer, and a continuation of said pull releases the hammer, when the left

barrel is discharged. This last action is termed "double," and has been hitherto employed, generally, in pistols when rapid and continuous successive discharges are frequently required.

One important feature in this invention is that the release of one hammer is not necessarily dependent upon, nor does it affect the other, and each, so to speak, is operated separately from the other.

The drawings accompanying this specification represent, in Figure 1, a vertical longitudinal sectional elevation of the left-hand hammer and its operating mechanism, while Fig. 2 is a similar view of the right-hand one belonging to a gun and embodying my invention. Fig. 3 is a similar view in which a pull of the trigger is exerted to cock the left hammer, the latter being shown just prior to its release. Fig. 4 is an isometric view of the trigger, and Fig. 5 a plan of the same. Figs. 6 and 7 are detail views.

In these drawings, A represents a portion of the stock and breech-block of a double-barreled shot-gun, in which the hammers are shown at B C pivoted upon a downwardly-projecting rib or extension, D. These hammers are respectively operated by mainsprings *a b*, oppositely disposed with respect to each other; but the tension of both such springs is exerted downward. Moreover, these mainsprings are securely fixed at one end to the stock, and at the other are adjusted in stirrups *c d* in the ordinary method. Since these locks are "rebounding," so called, the notches *e f*, formed upon the lower portions of the hammers represent, respectively, half and full cock positions of the latter.

The trigger shown at E is composed of two portions, the lower or finger portion, F, and the upper or bifurcated part, G, which is composed of the two pieces *g h*. The usual trigger-spring, H, is disposed and rests upon a notch or spur formed upon the piece *g*, and serves to restore the trigger to its normal position after a pull and release of one or both of the hammers.

The action of the right-hand hammer and its operating mechanism is single acting—that is, when it is cocked its lower portion is exerted against the tension of its mainspring *a*, when the nose of the piece *g* engages in the full-cock notch *f*; consequently a pull upon the

finger portion F of the trigger G releases said hammer and the discharge of the cartridge occurs induced by the tension of the mainspring upon its hammer against the firing-pin.

5 On the other hand the left hammer, although operated by a double-action lock, still can be operated singly, if so desired. Now, in order to accomplish these two movements, I do not employ the nose of the piece *h* corresponding

10 to the part *g* to release the hammer C, but merely to hold it at full-cock, since if the former were similarly employed the two hammers would be released simultaneously. In lieu thereof at the rear of said nose in the

15 piece *h*, I have constructed a recess, *i*, and pivoted therein an upright lifting-latch, *I*, formed with a rearwardly-projecting lip, *j*, while a spring, *k*, disposed in said recess and upon the front side thereof, maintains the latch

20 in proper engagement with its co-operating mainspring, *b*, as shown in Fig. 3 of the drawings at *l*. Now, suppose the sportsman desires to discharge the left barrel singly, the hammer C is cocked by pulling it back, which

25 action engages the notch *f* with the nose of the piece *h*, but its mainspring still remains inactive. In order to release said hammer for a discharge of its barrel the trigger is pulled back, when the lifting-latch is carried upward

30 until its lip *j* engages with the mainspring *b*, which is forced upward against its tension, and then becomes active. At the same time the nose of the piece *h* is disengaged from the full-cock notch *f*, and the position of the ham-

35 mer is maintained by the pull from the trigger so long as the lip *j* of the lifting-latch *I* is held in contact with the mainspring *b*; but a further pull of the trigger, causing the lifting-latch to move in the arc of a circle, throws

40 the latter forward and the lip wipes along said mainspring, and is disengaged from the latter, when the hammer is free to fall, driven by the tension of its mainspring upon the firing-pin, and a discharge occurs. The action of

45 the spring *k*, it will readily be seen, is to maintain the lifting-latch in such proper position that its lip *j* will always be in readiness to engage its co-operating mainspring, provided the trigger is moved a sufficient distance to

50 bring it in contact therewith. Thus the movement and action of the trigger are twofold. The first part of its rearward travel affects the right hammer to release it, providing the latter is at full-cock, otherwise it remains at rest,

55 while the latter part of said rearward movement of the trigger by a pull thereon accomplishes the release of the left hammer, if this is cocked, by the lifting-latch pushing the mainspring into an active position and suddenly releasing the latter, which is free to assume its normal or inactive position, and in so doing actively actuates its hammer.

It will be observed in Fig. 2 that when the trigger is in its normal position, or when the

65 right hammer is at half or full cock, that lip *j* upon the lifting-latch lies some distance below its mainspring *b*, and thus in the act of

releasing the right hammer said latch may rise inactively until said hammer B has been released. Furthermore, I have extended the

70 lifting-latch *I* considerably beyond its lip *j*, so that when the hammer C is cocked and has lifted its mainspring the latch, owing to the pressure of the spring *k*, shall not pass beneath and under said spring *b*, and thereby

75 prevent release of the hammer. This mainspring *b* is provided with an offset, *m*, (see plan in Fig. 6,) to permit of free play of the lifting-latch whenever it is actively employed, and with which it engages.

80

From the previous description of the operation and arrangement of the various parts it will be readily understood how either of the hammers B C can be separately and independently operated. I will now proceed to describe the co-operation of the various parts to enable a sportsman provided with a double-barreled shot-gun, as above premised, to discharge both barrels in rapid succession.

85

Very often if a snap shot occurs there is

90 time to cock but one hammer, and the user is thus handicapped, since he can discharge but one barrel. Now, with my invention, though but one hammer is cocked, both barrels can be discharged. Supposing such a shot offers,

95 the sportsman brings the weapon quickly to his shoulder, the right hammer B being held at full-cock by engagement of the piece *g* upon the trigger with the notch *f* upon said hammer and against the pressure of its mainspring

100 *a*. A pull being brought upon the trigger the piece *g* is disengaged from the notch *f* and the hammer released. This movement of said trigger has lifted the rear portion of the piece *h* until the lip *j* is just in contact with the

105 mainspring *b*, co-operating with the hammer C. Now, the user, in lieu of being limited to but one barrel, owing to the circumstances, desires to fire the left undischarged barrel, and without removing the weapon from his shoulder maintains the pull upon the trigger after

110 the discharge of the right barrel, when the lifting-latch *I* is now actively operated by its lip *j* pressing against the mainspring *b*, which brings the hammer C to full-cock, and a further pull, as before premised, releases said

115 latch from the mainspring, and the left-hand hammer is released and the barrel discharged; hence this discharge can take place at any time the user sees fit. Furthermore, in the

120 case of snap shots, the left hammer, being operated by a double-acting lock, may be cocked and released by a pull of the trigger without cocking; hence the sportsman simply has to throw the gun to his shoulder and discharge

125 the left barrel instantly by a pull upon the trigger.

In the employment of a single trigger with two hammers it sometimes occurs that both barrels may be accidentally discharged al-

130 most coincident with each other. To avoid this I have provided a spring-actuated safety locking-pin, *n*, which is slightly longer than the rib D is thick, and, furthermore, it is bev-

eled at its extremity upon the right. The spring *p* exerts its tension to maintain the safety-pin *n* projecting beneath the right hammer; hence when the latter is cocked a wiping motion is produced across this end of the pin, which is driven to the left, and it then projects beneath the left hammer and prevents this latter hammer from being cocked.

On the other hand, in case the left hammer is to be used singly, the user cocks it without any difficulty, since the spring has carried the safety-pin back to its normal position beneath the right hammer, and then, when the left hammer stands fully cocked, it has passed over the end of the pin *n* (see Fig. 3) and the latter cannot be moved until release of the left hammer; consequently the right hammer cannot be cocked, since it is impossible for it to effect any movement of said safety-pin. For instance, if the right hammer is at full cock the left hammer is locked and cannot be drawn back, but the instant the right one is released the left hammer is free to pass back, and no interference is occasioned by the use of such pin; but it prevents a person from ever receiving a severe shock resulting from the discharge of both barrels simultaneously.

I claim—

1. The combination of the two hammers B and C with a single trigger which is bifurcated at its upper end, forming a piece, *g*, which engages with one of said hammers, and a piece, *h*, which engages the other hammer, substantially as set forth.

2. In combination with the hammers B C and their mainsprings, a trigger bifurcated to form pieces *g h*, which respectively engage said hammers, and a spring-pressed movable lip, *j*, attached to said piece *h* and serving to press against spring *b*, so as to make its tension available, substantially as set forth.

3. The lifting-latch I, provided with a shoulder, *j*, in combination with the trigger to which it is pivoted, the spring *k*, bearing against said latch, the mainspring *b*, which is pressed and released by said shoulder, the hammer C, which is actuated by said spring, the latch I being extended considerably beyond the shoulder *j* to prevent said latch from impeding the action of the hammer, substantially as set forth.

4. The combination of a single-acting lock and a double-acting lock with a single trigger which engages the hammers of both locks, substantially as set forth.

5. The two hammers B C and their mainsprings *a b*, in combination with a trigger which engages and releases hammer B, and a spring-pressed latch pivoted to said trigger, which has a shoulder for operating mainspring *b*, said shoulder being too far from the latter spring to act thereon until after the release of hammer B, substantially as set forth.

6. The mainspring *b*, provided with an offset, *m*, in combination with the lifting-latch I, having a shoulder, *j*, for acting against said offset, a hammer, C, operated by said mainspring, and a trigger to which said latch is pivoted, substantially as set forth.

7. The pin *n*, transversely movable with respect to the line of motion of the hammers, having a beveled end on one side and arranged in a line with the position of the hammers when cocked, in combination with said hammers, said pin being of a length slightly greater than the interval between the two hammers, and presenting its beveled face to one of the hammers as the latter is cocked, for the purpose set forth.

8. In combination with the two hammers B and C, the transversely-movable beveled pin *n*, of a length slightly greater than the interval between said hammers, and located opposite the places occupied by them when cocked, and the spring *p*, which causes the beveled end of said pin to protrude in the path of hammer B as the latter is cocked, substantially as set forth.

9. In combination with a fire-arm hammer, a locking-pin which is transversely movable with respect to the line of motion of said hammer, and another hammer which engages said pin and forces it across said line of motion, said pin being arranged on a line behind the position occupied by the first-mentioned hammer when the latter is down, substantially as shown.

In testimony whereof I affix my signature in presence of two witnesses.

FREEMAN WESTON HOOD.

Witnesses:

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A. F. HAYDEN.