J. S. DUFFIE.

GUN-LOCK.

No. 172,400. Patented Jan. 18, 1876.

Fig. 1.

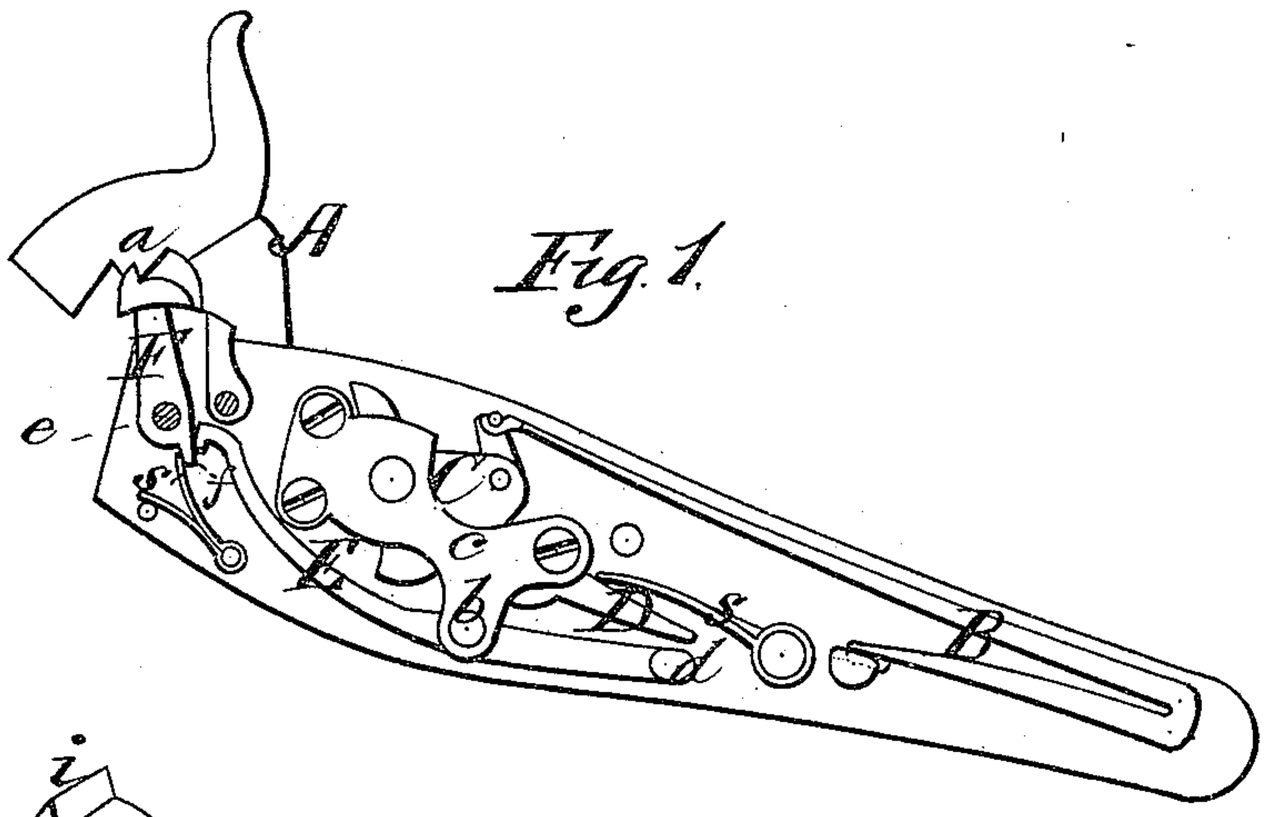


Fig 2

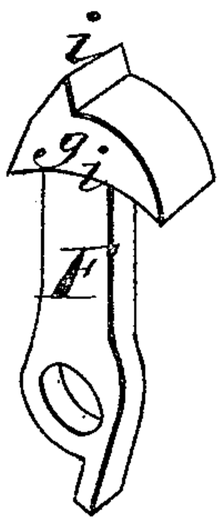
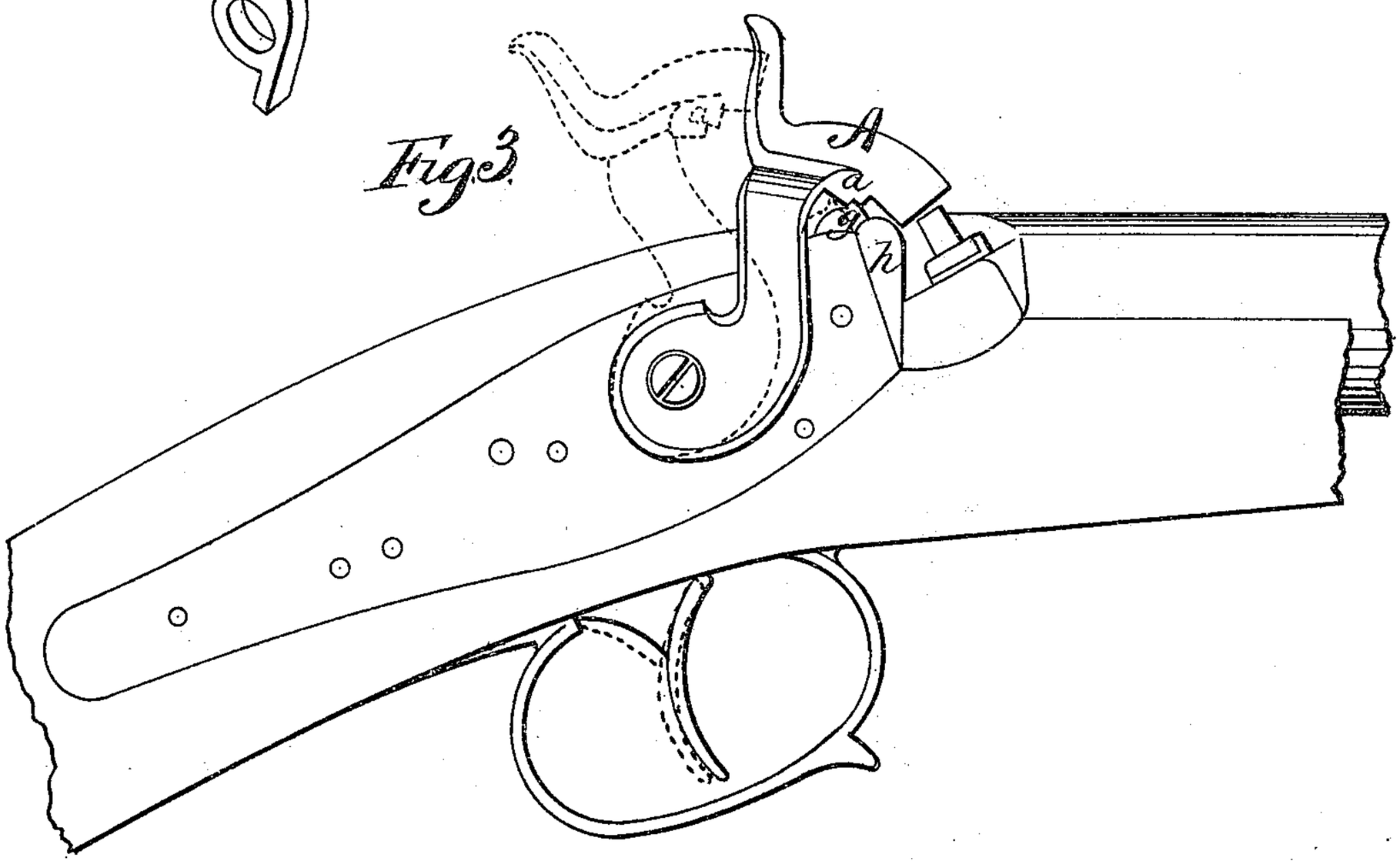


Fig 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN S. DUFFIE, OF LITTLE ROCK, ARKANSAS.

IMPROVEMENT IN GUN-LOCKS.

Specification forming part of Letters Patent No. **172,400**, dated January 18, 1876; application filed June 19, 1875.

To all whom it may concern:

Be it known that I, JOHN S. DUFFIE, of Little Rock, in the county of Pulaski and State of Arkansas, have invented a new and valuable Improvement in Gun-Lock Attachments to prevent accidents; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my lock, and Fig. 2 is a detail view. Fig. 3 is a view of the same in operation.

This invention has relation to improvements in locks for fire-arms; and the nature of the invention consists in a vibrating hammer-guard, which is adapted to be thrown by a suitable spring under the hammer when the latter is raised, thus doing away with the half-cock, and holding it free from the cap upon the nipple, and is adapted to be retracted in the act of firing, thus allowing the hammer to explode the cap upon the nipple, all as will be hereinafter more fully explained.

In the annexed drawings, A designates the hammer; B, the mainspring; C, the tumbler, and D the trigger-lever, which is held to its engagement with the tumbler by means of the usual well-known spring *s'*. With the exception of a notched shoulder, *a*, upon the under side of hammer A, serving a purpose which will hereinafter appear, all these elements or parts do not essentially differ from those commonly used in gun-locks, and I do not deem it necessary to further describe them, but will proceed to explain in what my invention principally consists.

Trigger-lever D, unlike those commonly used, is unprovided with a tang, but is discharged by means of an independent vibrating lever, E, pivoted at *b* in the lower part of the tumbler-frame *c*, and communicating with the trigger by means of a tang, *d*. As shown in Fig. 1, lever E, when at rest, hangs free of trigger-lever D, so that it has a degree of vibration before coming in contact therewith and discharging the piece, the effect of which will hereinafter become apparent. Lever E extends upward to the front to a vertically-vibrating hammer-guard, F, which is pivoted at *e* in a frame or case, and is provided with a lip, *f*, which compresses a V-shaped spring, *s'*, rigidly secured in any suitable manner to the lock-plate. Guard F, as shown in Fig. 2, has upon its upper end an enlarged head, *g*, which overhangs the upper edge of the lock-plate, the lower edge *i* of the overhanging part being concave, and conforming to the convexity of the lock-plate, for the purpose of allowing the said guard to vibrate vertically to and from the nipple, and its upper edge is provided with a projection, *i*, adapted to be received into the notch of shoulder *a* of the hammer. When the latter is raised as though to put it at half-cock, guard F will be thrown forward by spring *s'* into a notch in the "break-off" plate *h*, thus arresting its forward movement and preventing lateral displacement; and if the hammer be lowered its shoulder *a* will rest upon the said guard, and the hammer will at all times, and under any circumstances, be prevented from discharging the gun. Whether the cock be at rest upon the guard or be at full-cock, the said guard will be held by its spring *s'* into engagement with break-off plate *h*, and the casual explosion of the cap will be consequently prevented from any cause whatsoever; but when it is desired to discharge the piece, the operation of the trigger against tang *d* will raise the rear end of lever E, throwing its front end downward, and causing the head of the hammer-guard F to be thrown back before the said tang strikes trigger-lever D, and allows the hammer to fall. This result (the removal of guard F out of the way of the falling hammer) is due to the fact that lever E is pivoted clear from the trigger-lever, and is thus allowed to have a degree of play adequate to performing its function before striking the detent or trigger lever.

The advantage of this construction will be readily seen when it is taken into consideration that the cap cannot be exploded under any circumstances without a previous withdrawal of the hammer-guard, and that if, in consequence of a fall, the mainspring be al-

lowed to act, the piece being at full-cock, the said guard will prevent the hammer from exploding the cap upon the nipple. The same result will occur if the hammer should slip out of the hands of the sportsman or soldier in the act of cocking the piece, or if, after a casual entanglement with a bush, it be suddenly released.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a gun-lock mechanism and a trigger, of the vibrating and independently-pivoted lever E, substantially as specified.

2. The combination of a vertically-vibrating hammer-guard, F, its actuating-spring *s'*, and the lever E, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN S. DUFFIE.

Witnesses:
A. D. JONES,
W. F. HILL.