

(No Model.)

A. HYDE.

LOCK MECHANISM FOR CONCEALED HAMMER GUNS.

No. 315,413.

Patented Apr. 7, 1885.

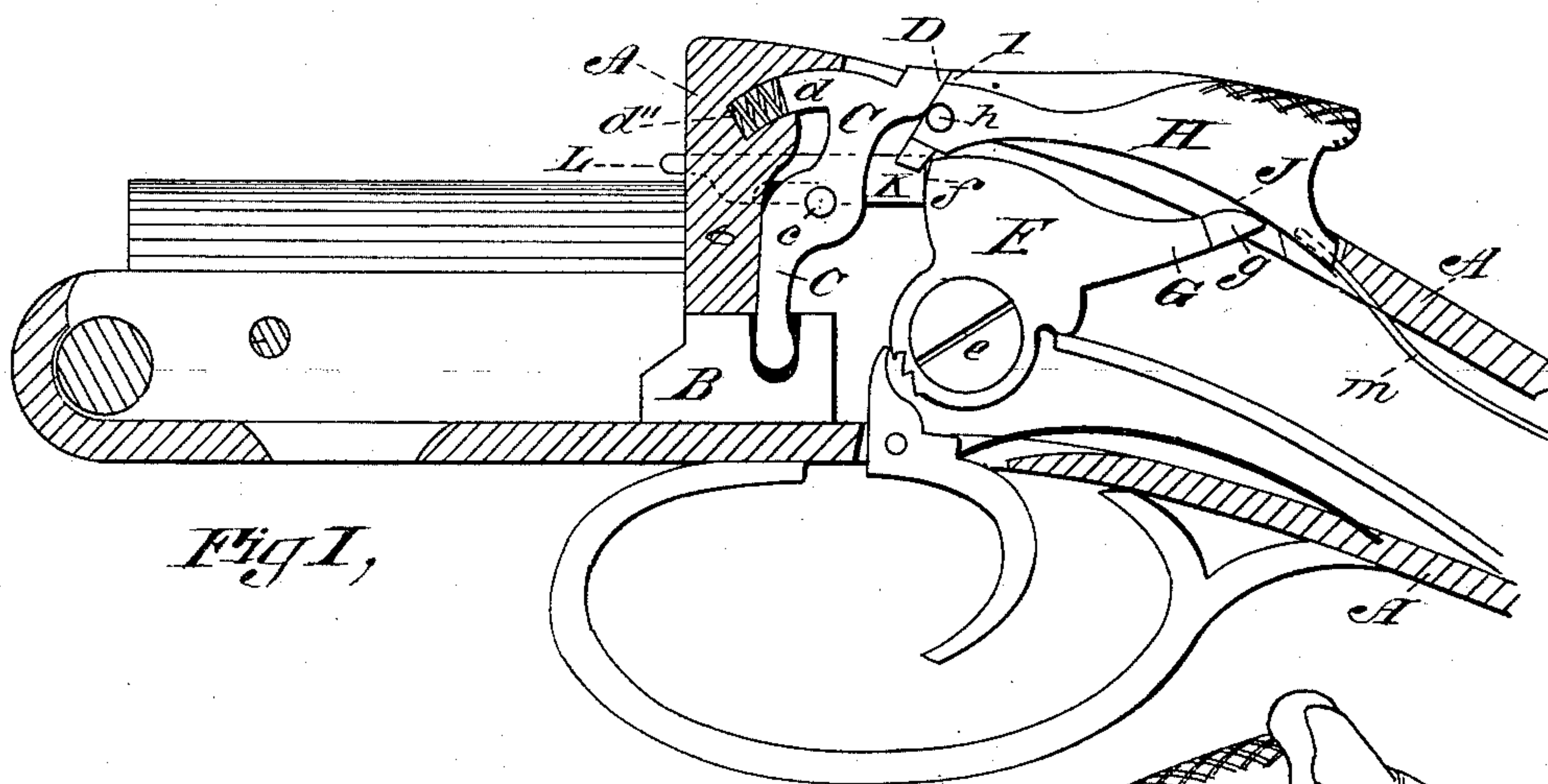


Fig I,

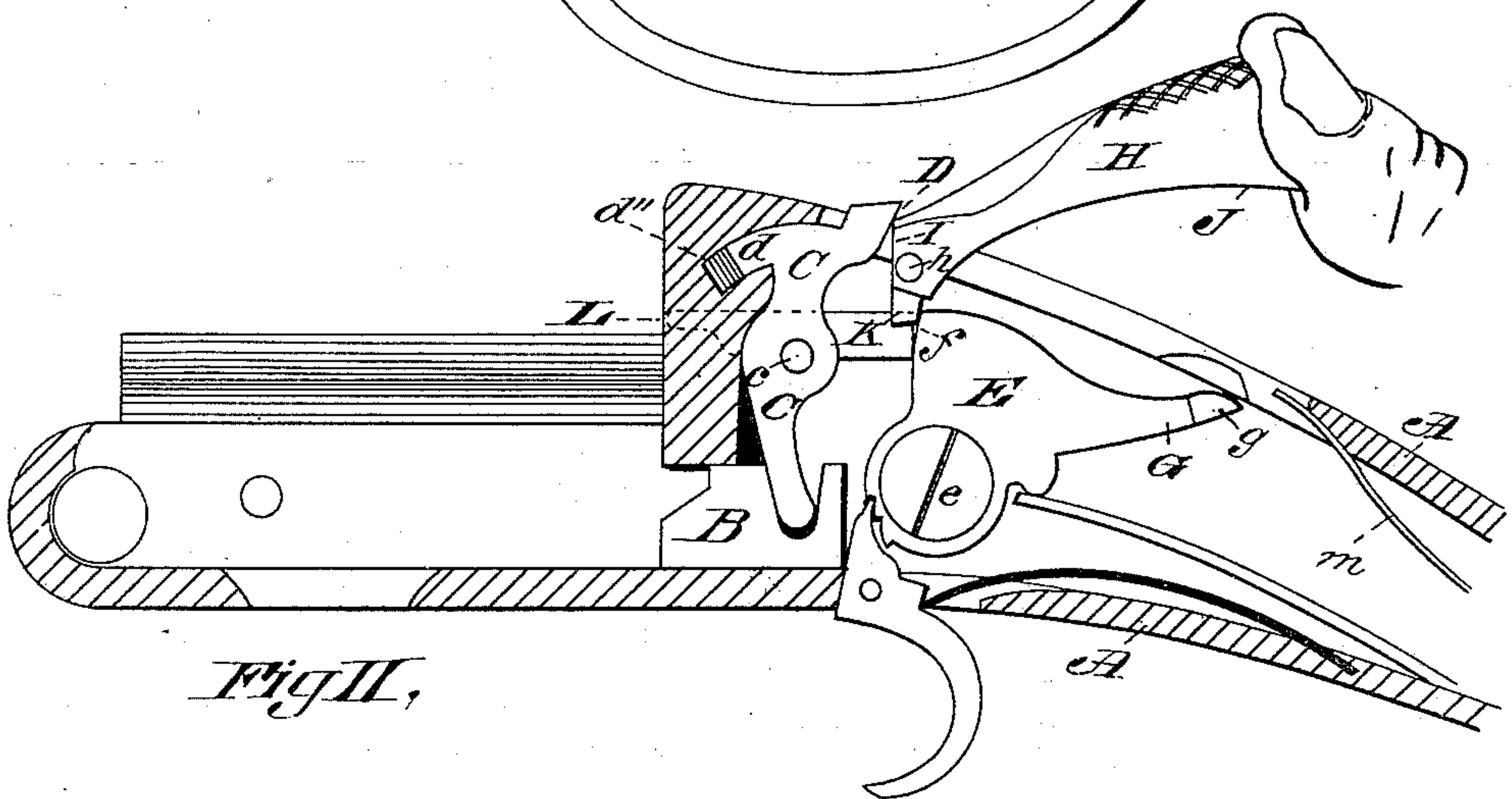


Fig II,

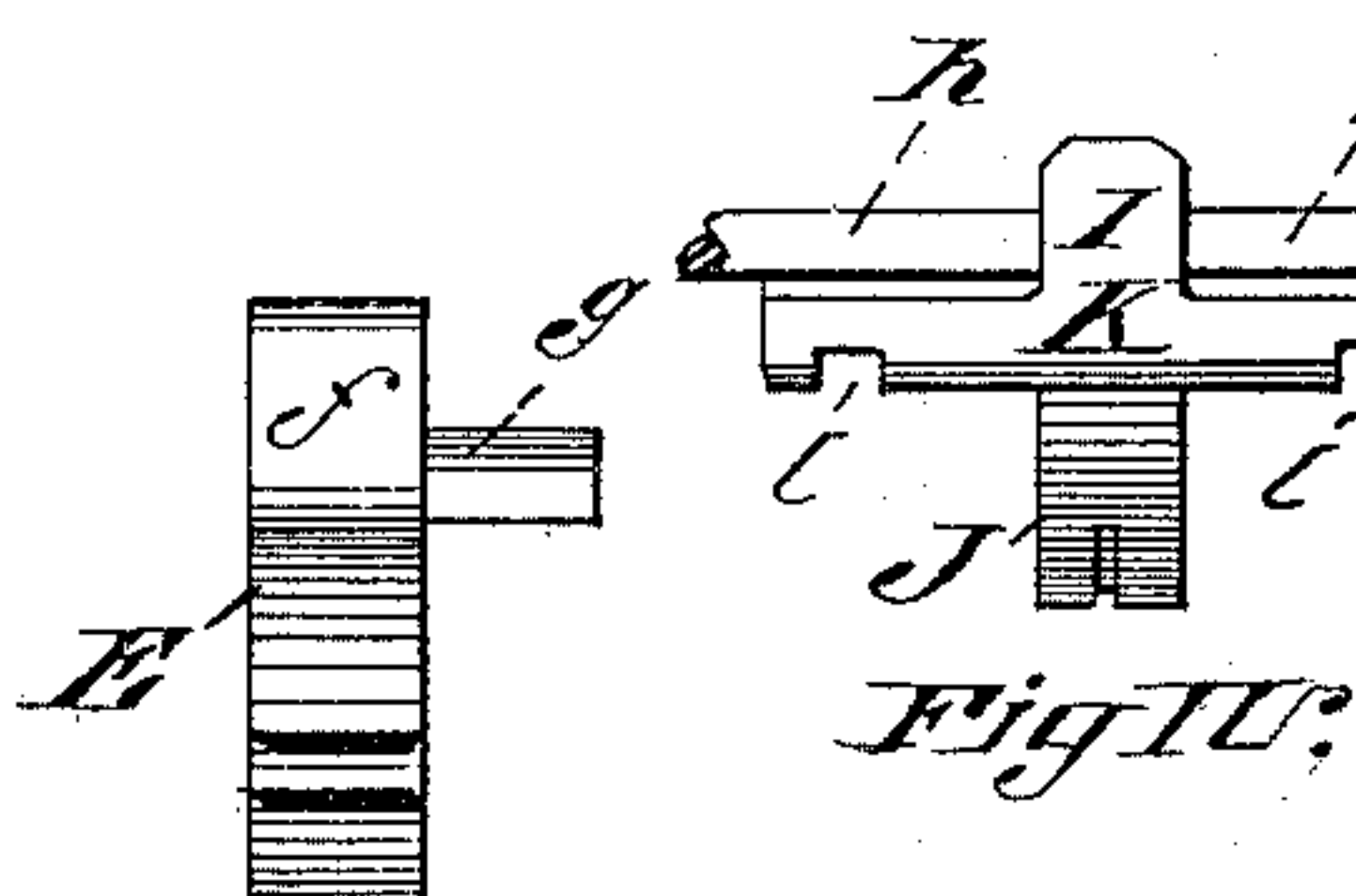


Fig IV:

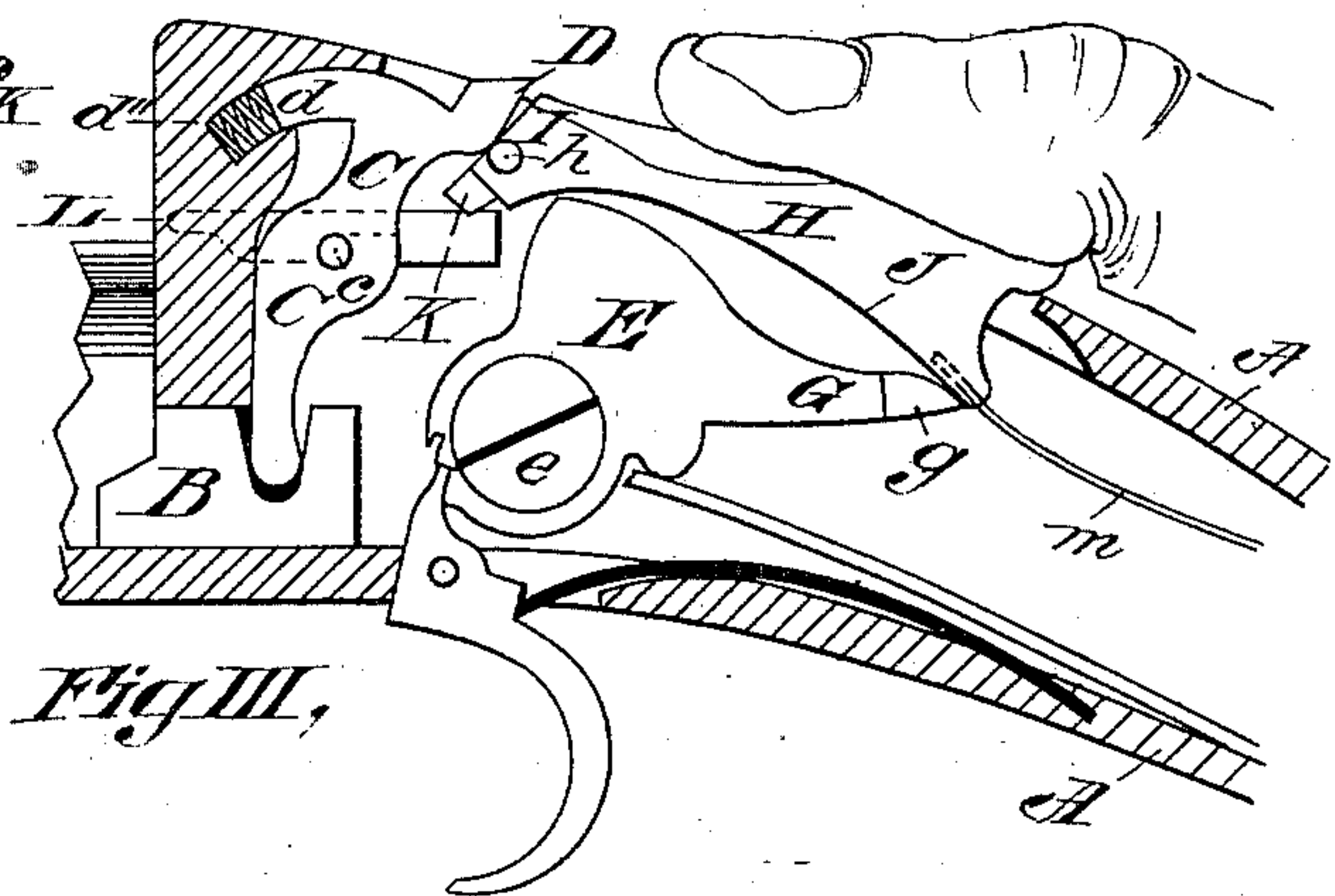


Fig III,

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LOCK MECHANISM FOR CONCEALED-HAMMER GUNS.

SPECIFICATION forming part of Letters Patent No. 315,413, dated April 7, 1885.

Application filed October 18, 1884. (No model.)

To all whom it may concern:

Be it known that I, ANDREW HYDE, a citizen of the United States, residing at Hatfield, in the county of Hampshire and State of Massachusetts, have invented a new and useful Improvement in Hammerless, otherwise called "Concealed-Hammer," Guns, of which the following is a specification.

The first part of my invention consists of the construction and relative arrangement in a hammerless-gun of a locking-bolt, one or more internal hammers or strikers, and an actuating hand-lever, whereby in one movement of the hand-lever the striker or strikers are brought to a "half-cock" and the bolt moved to release the barrels.

The second part consists in the construction and relative arrangement in a "hammerless gun," of one or more pivoted hammers or strikers, and a bolt-releasing hand-lever, whereby, by means of the hand-lever, the striker or strikers may be brought from a fired position to a half-cock and from a half-cock to a full-cock.

The third part consists in the construction and relative arrangement in a hammerless gun, of one or more strikers and a bolt-releasing hand-lever, whereby the hand-lever is adapted to ease the strikers from a full-cock to a half-cock position, or beyond it.

My invention is fully illustrated in the accompanying drawings, in which—

Figure I is an elevation in section through the receiver of a hammerless gun, showing one striker down and showing the relative position of the other parts thereto. Fig. II is the same view of the receiver, showing the striker brought to a half-cock, and the locking-bolt in the act of being moved to release the barrels. Fig. III shows the striker brought to a full-cock or in the act of being lowered from that position, and Figs. IV and V are detail views.

A is the receiver.

B is a locking-bolt.

C is a lever pivoted at *c* in the receiver, and having what may be called its "free end" operatively connected to the bolt B to cause said bolt to be reciprocated by the vibration of lever C.

d is an arm of lever C, bearing against a spring, *d'*, in the receiver, and D is a bearing-

surface upon the lever C opposed to the spring end *d*.

E is a hammer or striker contained within the receiver, pivoted upon a pin at *e*, provided with a mainspring, and adapted to be engaged by the trigger-dog. The striker E is also provided with a rear extension or tail, G.

H is an "action-lever" pivoted at one end, and adapted to have its other swing through a slot in the top of the receiver.

I is a bearing-surface upon the pivoted end of lever H, and conforming to the bearing-surface D of lever C.

K is a shoulder upon the pivoted end of lever H, and adapted to come against and hook over the upper front corner of the striker E.

J is an undersurface of lever H, and adapted to bear against the upper extreme end of tail G of striker E; and *m* is a spring in the receiver adapted to bear against the free end of lever H to hold it normally in the position shown in Fig. I.

The lever H is arranged relatively to the bolt-lever C and striker E to have its pivoted head interposed between the two, and to have its surface I and shoulder K upon opposite sides of its pivot *h* operate to distend the lever C and striker E upon an upward swing of lever H.

The lever H is arranged, when in an inoperative position, as shown in Fig. I, with the striker down, and as it would be in Fig. III were it released by the hand, to have its surface I coincide with the spring-distended surface D of lever C, and to have its free end held by spring *m* immediately above and in contact or close to the tail G of the striker. The surface D of lever C bears only to one side of pivot *h* upon lever H, to adapt the lever C to be moved only by the upward swing of lever H, while remaining unaffected by the downward swing of lever H.

The operation of the mechanism is as follows: The barrels being locked, as indicated by the bolt B in Fig. I, and the striker being down, as shown in the same figure, when it is desired to break the barrels away, the lever is pushed up by hand, as shown in Fig. II, in that motion bringing the striker to a half-cock and withdrawing the bolt to release the barrels, and bringing the striker to a half-cock

at a short interval before the barrels are released. The barrels being released, a removal of the pressure from lever H permits the spring d'' , acting through surfaces D I, to restore the lever H to the position shown in Fig. I. The striker being at a half-cock, it will be seen that the loaded barrels can be locked to the breech without disturbing the striker in its half-cock position. When it is desired to full-cock the striker, a downward pressure of the hand upon lever H, as shown in Fig. III, bears said lever upon the tail G of the striker, to bring it to a full-cock, the spring m , as aforesaid, returning lever H, when manually released, to the position seen in Fig. I; and it will be seen that the play of lever H under the hand opposed only by the slight spring m , acts as a sure indicator of the full-cock position of the striker. The parts being in the position shown in Fig. I, a downward pressure of the hand upon lever H, as shown in Fig. III, will bring the striker to a half-cock, as well as it would be brought to the same position by an upward movement of said lever, as before described, and this is important for the reason that sometimes from fouling or rusting the bolt B will stick, and in order to exert the full force of the hand to start said bolt, it is desirable to get the power of the mainspring exerted through the striker out of the way, which is accomplished by bringing the striker to a half-cock by a downward pressure upon lever H.

Should the bolt B from any cause remain stuck in the position seen in Fig. II, the lever H, being in the position seen in Fig. I, would show a gap between the surfaces D I, which gap would indicate to the eye the failure of bolt B to lock the barrels.

In the drawings it is deemed sufficient to illustrate the invention by showing only one striker with its trigger and mainspring, the two being the usual counterparts, and as a convenient way of operating both strikers by a centrally-disposed lever, H, working through a narrow opening in the top of the receiver, projections g , in reverse directions from the tails G of strikers E, come under surface J of lever H to be acted upon by it, as the top surface of a single striker would be. The end view of one striker is shown in Fig. V; also, to more clearly illustrate the action of the parts, the striker E is shown in rear of the lever C, and a firing-pin, L, represented as interposed between the striker and a cartridge; but without a departure from the spirit of my invention, the strikers having firing-points may be arranged upon each side of lever C, and the lever H straddling the lever C may act on a surface, D, arranged upon the end d , it only being important that the lever H should distend a spring-actuated bolt-lever and a striker to so simultaneously move them, to be in turn restored by said spring.

In Fig. IV an end view of lever H is shown, openings l permitting the firing-pins L to pass through the shoulder K.

By these means I am able to provide a hammerless gun combining the advantages of a hammer-gun.

Having described my invention, what I claim is—

1. In a breech-loading gun of the character described, the barrel-locking bolt, a pivoted lever bearing thereon, a spring bearing on said lever, a pivoted hammer having usual trigger mechanism, and an action-lever pivoted, substantially as described, to bear on one side of the pivot on the bolt-operating lever and on the other side to bear on the hammer when said lever is actuated, the combination being and operating substantially as described.

2. In a concealed-hammer gun, the combination of a barrel-locking bolt, a pivoted operating-lever engaging therewith, a spring bearing on one side of said lever, a pivoted hammer having the usual trigger mechanism, an action-lever pivoted in the upper portion of the frame, having an extension above its pivot engaging the bolt-operating lever and an extension below its pivot engaging the front of the hammer when suitably actuated, substantially as described.

3. In a concealed-hammer gun, the pivoted hammer having a rearward extension, (and usual trigger mechanism,) and the action-lever, pivoted, as described, so as to enter the top of the frame in rear of its pivot and bear directly on the extension of the hammer, combined substantially as described.

4. A slotted gun-frame, a pivoted hammer within said frame in line with the slot, and an action-lever pivoted in the frame, having a projection which enters the slot in front of the hammer-pivot and a projection in rear of the hammer-pivot, said projections engaging the hammer alternately when suitably actuated, the combination being and operating substantially as described.

5. In a concealed-hammer gun, the combination of a sliding locking-bolt, an operating-lever engaging therewith, a spring bearing on one side of said lever, a pivoted hammer in usual location and having rear extension, an action-lever pivoted in the frame and having engagement above its pivot with the bolt-lever and below its pivot with the face of the hammer, (when said lever is actuated in one direction,) said action-lever engaging also the rearward extension of hammer when actuated in a reverse direction, all being and operating substantially as stated.

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Witnesses:

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