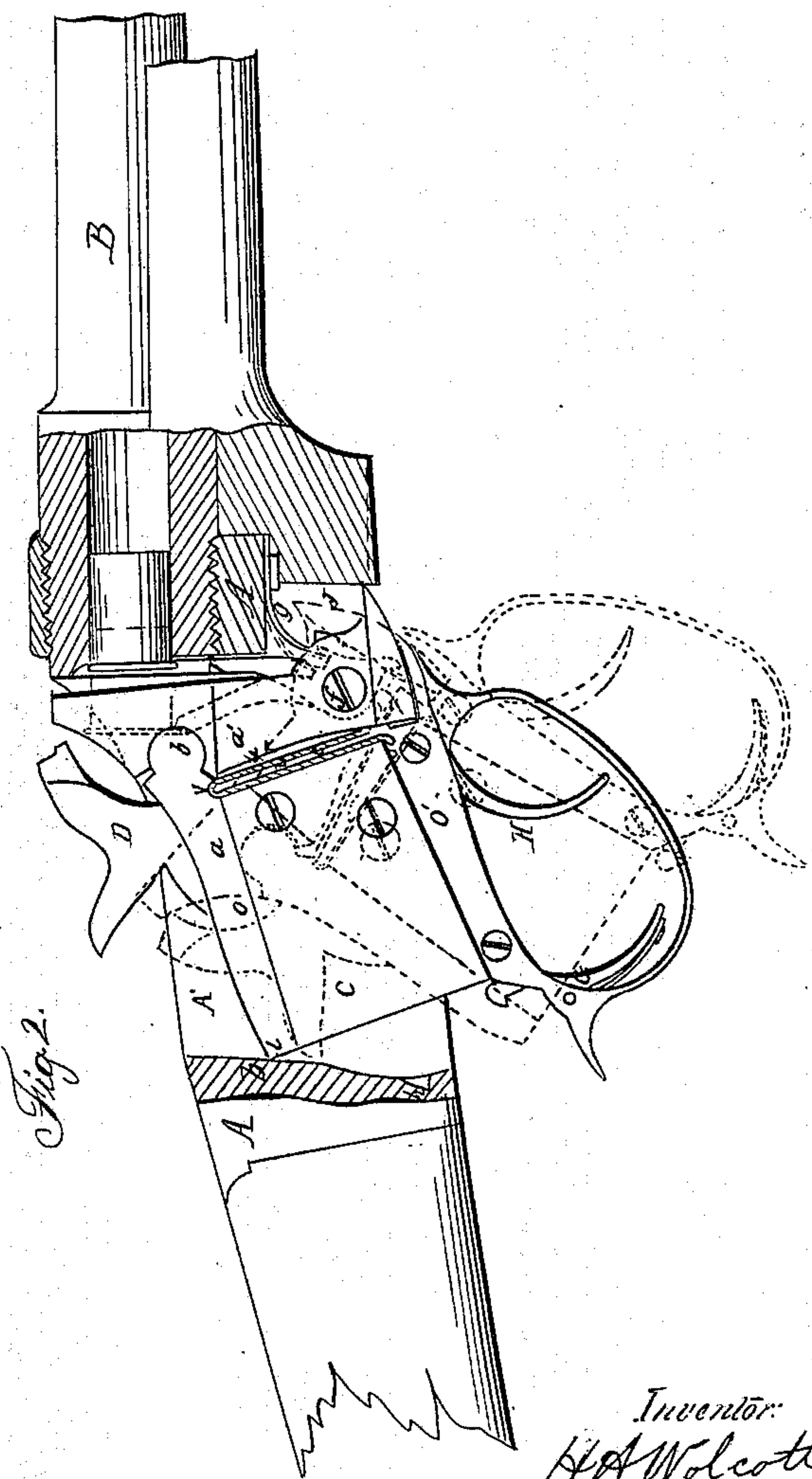
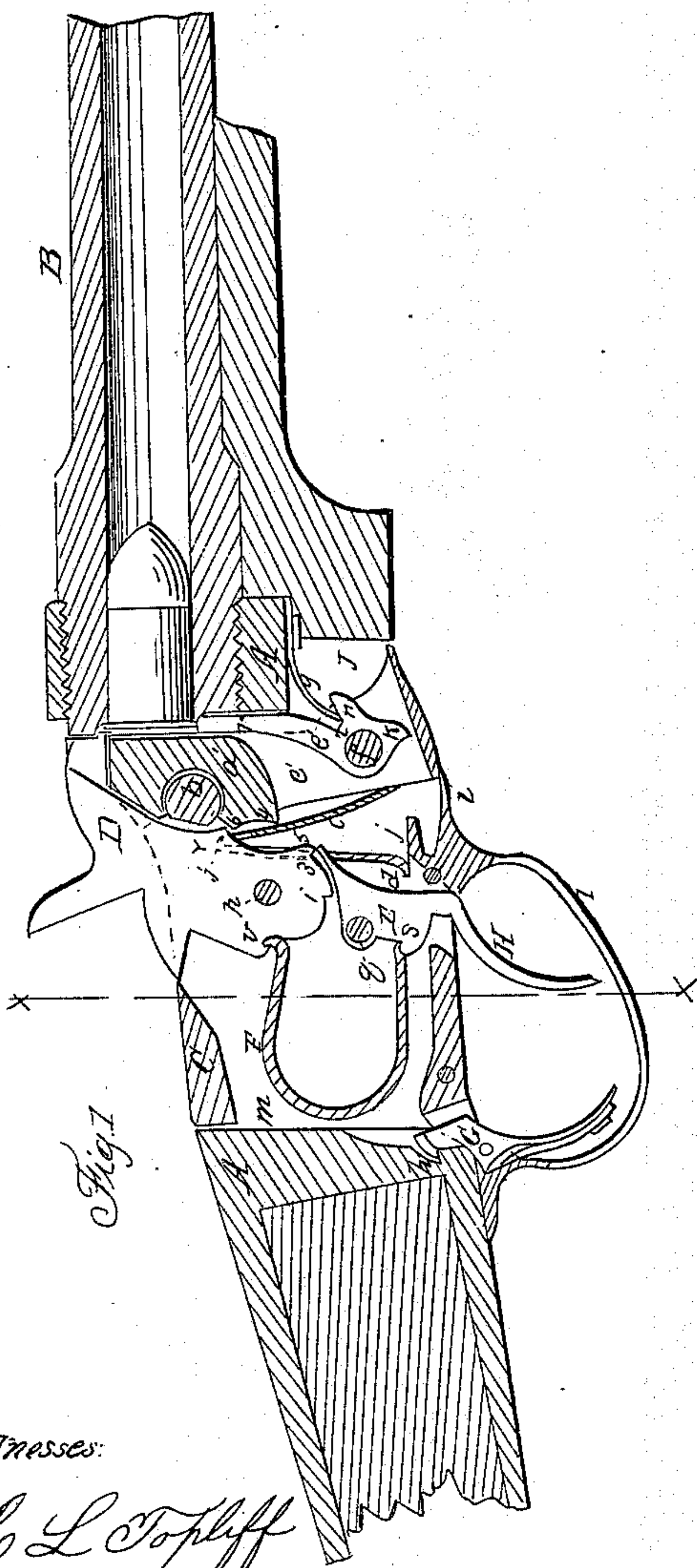
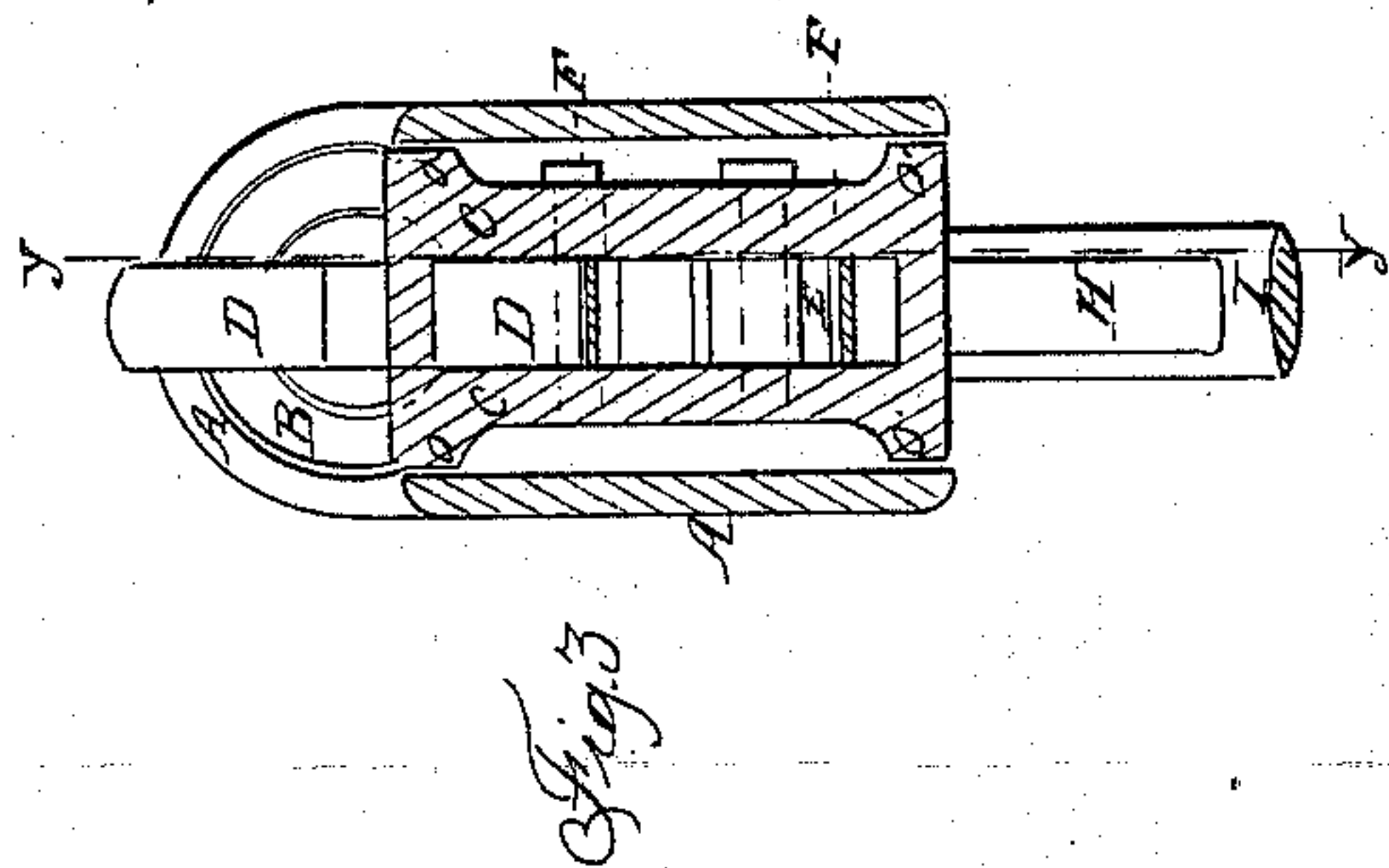


H. H. WOLCOTT.
Breech-Loading Fire-Arm.

No. 60,106.

Patented Nov. 27, 1866.



Witnesses:

C. L. Toppliff
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United States Patent Office.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

H. H. WOLCOTT, OF YONKERS, NEW YORK.

Letters Patent No. 60,106, dated November 27, 1866; antedated November 22, 1866.

SPECIFICATION.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, H. H. WOLCOTT, of Yonkers, in the county of Westchester, and State of New York, have invented a new and useful Improvement in Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is an elevation of a vertical longitudinal section of the receiver of a breech-loading gun, part of the stock and barrel being also shown, the line of section being seen at *y*, in fig. 3.

Figure 2 is an elevation of the same parts shown in fig. 1, the receiver being partly broken away to expose the lock-frame, which is drawn in two different positions, indicated by black and red lines.

Figure 3 is a vertical cross-section of the receiver taken through the lock-frame *x*, fig. 1, being the line of section.

Similar letters of reference indicate like parts.

This invention consists in an improvement in that class of fire-arms known as breech-loaders, in which the lock-frame is swung out of the receiver, in order to reload the piece.

A is the receiver and B is the barrel of a fire-arm to which my invention is applied for the purpose of illustrating it. The receiver has a vertical opening made through it, designated by the letter A', to receive the lock-frame C. The sides of the opening are straight, as seen in fig. 3, where the lock-frame is seen in place therein. The breech of the barrel extends a little distance within the front part of the opening A', which is there cut down on a vertical line, or, in other words, at right angles to the barrel; and the back part of said opening is parallel with said front part of the opening for a portion of its height, as shown by the line *m*, the lower part being slightly curved. This back end may be straight throughout, instead of being partly straight and partly curved. C is the lock-frame, made in two parts, *a a'*, hinged at *b*, the joint being formed on the front face of the part *a*, near its top and quite across it, and fitting in a socket made quite across the back of part *a'*, near its top. The parts are hinged together and unhinged by sliding the joint sideways into and out of the socket, when the lock-frame is removed from the gun. When the lock-frame is in place it is not possible that its parts *a a'* become displaced laterally, since the hinge is made in the widest part, O, of the frame, which is in contact with the sides of the opening, A', of the receiver. The lock-frame is wider at top and bottom, as at *o o'*, where its width is just sufficient to fit snugly in the opening A', than it is between those lines, as will be seen by referring to fig. 3. The lock-frame is secured to the receiver by means of a pivot, *f*, which passes through the sides of the receiver, to which it is held by means of a screw-thread cut on it, the said pivot passing through the lower portion of the part *a'* of the lock-frame, and serving, also, as a pivot for the shell-drawer *e* to vibrate upon, as hereinafter explained. That part of the stock which lies beneath the breech of the gun is cut away, as seen at J, figs. 1 and 2, to permit the lower front part of the lock-frame to move up therein, when the lock-frame is drawn down out of the receiver. The divisions, *a a'*, of the lock-frame are constantly pushed asunder by a spring, *c*, which, in this example, is shown to consist of two leaves, and which is fitted and held between the divisions in the manner shown in figs. 1 and 2, the heel of the hinder leaf being bent so as to lock in a recess, *d*, cut in rim O', of the division *a*, and the front leaf pressing against the division *a'*. The top of the spring is held in a groove, V, cut in the lower edge of the rim O, of the division *a*. The spring may be placed flush with the sides of the rim O O', and there may be such a spring on each side of the lock-frame. The office of the spring is to keep the divisions apart, and its form, as well as its position and adjustment, may be varied to suit the convenience or judgment of the maker. The lock-frame is open from front to rear in both its divisions, in order to receive the hammer, the main-spring, the sere, and the shell-drawer, the latter being contained within the division *a'*, in an open space marked *e'*, and the two former being contained within the division *a*. *e* is the shell-drawer. It is fitted, as above stated, in the open space *e'*, of the division *a'*, and held therein by the pivot pin *f*, about which it vibrates. It has three limbs, the longest, *r*, of which is of such a length as, when the lock-frame is in place, to extend up to the cartridge in front of its flange, the breech of the barrel being cut away to form a groove for it, and its end being curved, so as to fit about the lower side of the shell of the cartridge. Another limb, *h*, extends in a forward direction from the body of the shell-drawer, being separated from the base of the limb *r*, by a notch, 2, which receives the free end of a flat spring, *g*, which projects backward and downward from that part of the receiver which is directly beneath the breech of the piece. The object of this spring is to cause the limb *r* of the shell-drawer to press against the breech of the gun, and

to return to that position after every movement in an opposite direction. The spring is shown flat in this example, but it can be made spiral, or of any other form. The lowest front part of division *a* projects forward so as to form a shelf, *z*, which closes the gap between the divisions, and laps a little way beneath the under side of division *a'*, when the two divisions are the furthest separated. A dog, *j*, also projects forward from the division *a* a little above the shelf *z*, and opposite to the cavity in division *a'*, so as to be capable of passing into it and reaching the lower limb, *K*, of the shell-drawer, which limb extends almost vertically below the pivot of the shell-drawer. The dog *j* may be dispensed with, and its office be performed by means of a projection, which may be part of the shelf *z*. The action of the dog *j* is to vibrate the shell-drawer and bring its upper limb, *r*, toward the lock-frame by striking against the lower limb *K*, when the divisions *a a'* are brought toward each other in the act of drawing the lock-frame downwards to the position shown in red outline in fig. 2. The upper part of the hammer projects upward through the top of the division *a*, in a slot of length and width sufficient for its movements, and the trigger *H* projects downward from the sere through the bottom of that division, in a similar slot. Behind the trigger *I* place a spring finger-latch *G*, whose dog engages a notch, *n*, at the bottom of the rear side, *m*, of the opening *A'*. The finger-piece of this latch and the trigger are each protected by the guard *I*, which projects from the bottom of division *a*. The lower part or tumbler of the hammer is notched at the places indicated by 1 and 3 for full-cock and half-cock, respectively, said notches being engaged by the sere in the usual way. The division *a'* is provided with a ledge, 4, which extends backward from it, at the top of its opening *e*, and upon which the projection, 5, of the tumbler rests when the hammer is at full-cock. The office of this ledge is to prevent the fall of the lock-frame, and its withdrawal from its place in the receiver, when the hammer is at full-cock, ready to be driven against the cartridge. When the lock-frame begins its descent from its place in the receiver, its highest rear corner is crowded against the end, *m*, of the opening *A'*, and the divisions *a a'* are thereby brought nearer together, swinging upon their hinge. This action of the divisions brings the hammer to half-cock, by means of the contact of the swell 6, on the division *a'*, with the hammer at the point marked 7 in fig. 1. The hammer and sere are placed within the lock-frame, in this example of my invention, the former being pivoted thereto by a pin, *p*, and the latter by a pin, *q*. *F* is the main-spring. It is connected to the hammer and sere by means of notches formed on their rear parts, *U* being the notch in the former, and *S* the notch in the latter. The spring has no other means of support, and its ends are bent in opposite directions, so as to enter the notches, which are cut in directions opposite to each other; the notch, *U*, of the hammer being behind its pin, *p*, and extending vertically upwards, and the notch, *S*, of the sere being placed below its pivot, *q*, and a little back of it, and extending vertically downward. The back or bow of the main-spring reaches in a horizontal direction toward the rear of the lock-frame. This mode of attaching the spring to the hammer and sere enables me to simplify the construction of the lock and its frame, and insures the direct action of the spring upon both the hammer and the sere.

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

1. The lock-frame *C*, composed of two parts, *a a'*, hinged to each other at *b*, and constructed and operating substantially as described.
2. I claim securing the extremities of the main-spring, *F*, in the manner described within notches, *U S*, in the hammer-butt and sere respectively, avoiding any intermediate attachment or bearing point, thus adapting the spring to move freely with the pivoted frame, and causing any deflection of the spring to be equally distributed throughout its entire length.
3. I also claim the swell 6 on the back part of division *a'*, of the lock-frame, for the purpose of bringing the hammer to half-cock in the way substantially as above described.
4. I also claim the projection 4 of division *a'*, for keeping the lock-frame in place and preventing its withdrawal when the hammer is at full-cock, substantially as above described.
5. In combination with a hinged lock-frame of the construction herein specified, I further claim the shell-drawer *e*, made with arms *r* and *k*, and operated by the contact of a projection, *j*, from the guard-bow *I*, as explained.

H. H. WOLCOTT.

Witnesses:

M. M. LIVINGSTON,
C. L. TOPLIFF.