

L. GEIGER.  
Breech-Loading Fire-Arm.

Patented Jan. 27, 1863.

No. 37,501.

Fig. 1

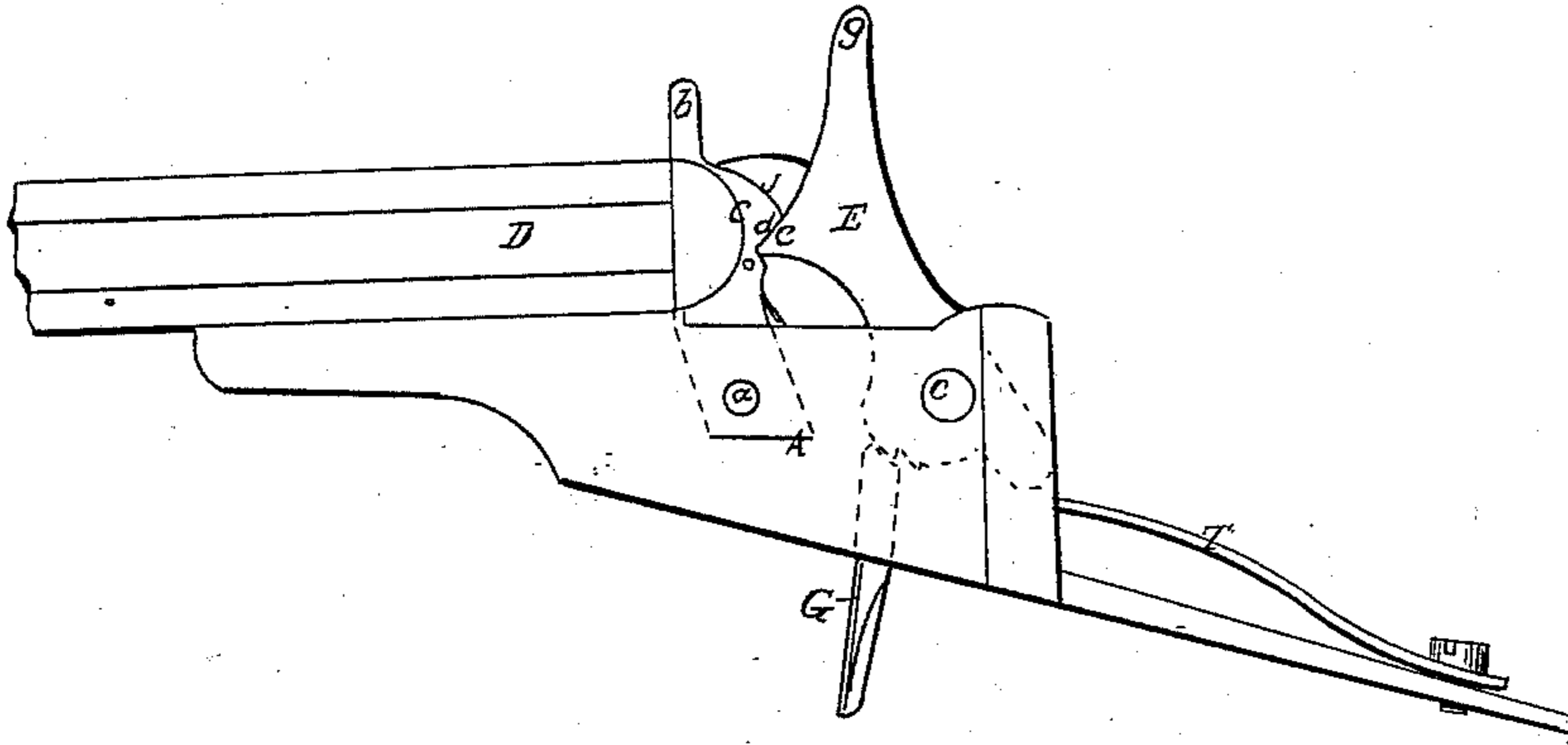


Fig. 2

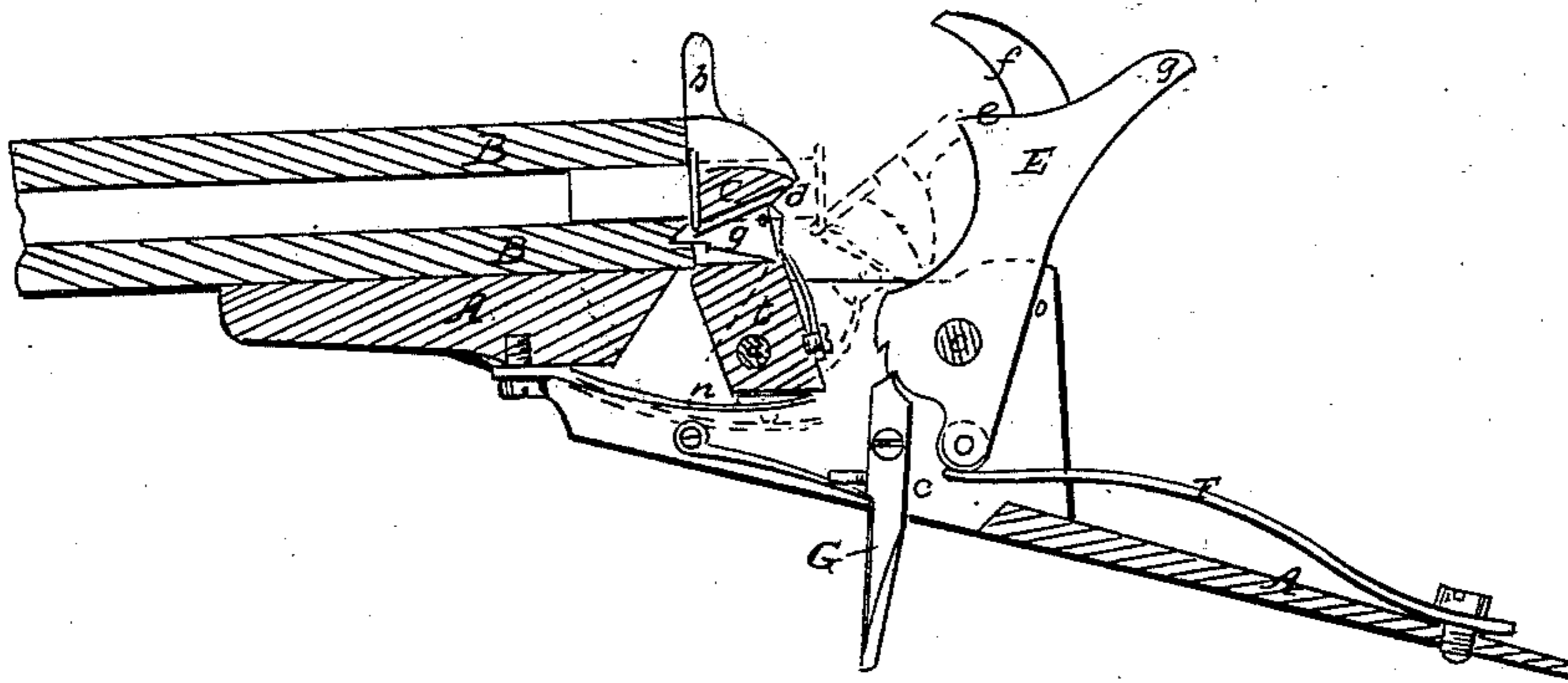
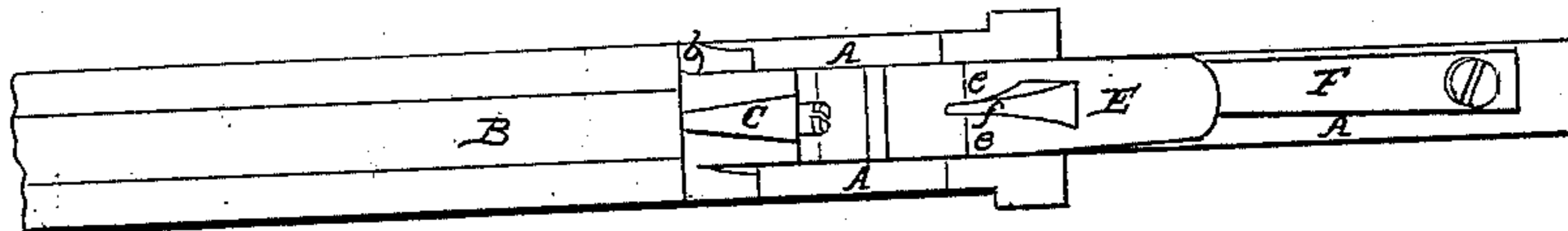


Fig. 3



Witnesses.  
J. W. G. Smith  
C. A. B. Smith

Inventor:  
L. Geiger  
per Munn & Co.  
attorneys

# UNITED STATES PATENT OFFICE.

LEONARD GEIGER, OF HUDSON, NEW YORK.

## IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 37,501, dated January 27, 1863.

*To all whom it may concern:*

Be it known that I, LEONARD GEIGER, of Hudson, in the county of Columbia and State of New York, have invented a new and useful Improvement in Breech-Loading Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side view of a portion of the barrel, the breech-frame, breech, and hammer of a fire-arm with my improvement. Fig. 2 is a central vertical section of the same, showing also the lock. Fig. 3 is a top view of the same.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in a mode of constructing and combining the movable breech and the hammer, whereby the hammer, by the act of falling to fire the charge, is caused to lock the breech securely against the rear end of the barrel, and to brace it against the force of the explosion of the charge, and the act of drawing back the hammer to cock or half-cock it unlocks the breech and leaves it at liberty to be opened for reloading.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A is the breech-frame, which connects the barrel B with the stock.

C is the breech, fitted to a mortise in the frame A, and swinging upon a pin, *a*, inserted transversely through the frame A in rear of and below the barrel, and furnished with a thumb-piece, *b*, to which to apply the pressure of the thumb for opening and closing it.

D is a light spring acting upon the lower part of the breech for the purpose of preventing it from dropping open when the hammer is drawn back. The same spring also serves to hold the breech open during the operation of loading.

In Fig. 2 the breech is shown closed in black outline, and open in red outline, and the relative positions of the spring are shown in black and red outline to correspond with the positions of the breech.

E is the hammer, having its butt fitted to the mortise provided in the frame A; and swinging in the same manner as the hammer of

other fire-arms on a pin, *c*, inserted through the frame, the said pin being arranged some distance in rear of the pin *a*, upon which the breech swings, and being somewhat stouter than the hammer-pin is commonly made.

The breech C is made with a projecting shoulder, *d*, on its rear, and the hammer is made with a projecting shoulder, *e*, on its front, below its head *f*, the said shoulders *d* and *e* being so arranged that when the breech is in contact with and closes the rear end of the barrel, and the hammer has been thrown forward by the mainspring, the shoulder *e* abuts against the shoulder *d* in such manner (shown in Fig. 1) that the hammer is made to constitute a brace to the breech, and lock it securely against the backward pressure consequent upon the explosion of the charge.

The hammer may have the mainspring F and trigger G applied and combined with it in the usual or any convenient manner.

To load, first, the hammer is brought to the position of half-cock; next, the breech is drawn back, as shown in red outline in Fig. 2. Then the cartridge is inserted, and afterward the breech closed by simply pushing it forward. The piece is then fired in the same way as other fire-arms, and the hammer in its fall or forward movement comes to the position relative to the breech represented in Fig. 1, and hereinbefore described, and so braces it securely.

The cartridges used may be of various kinds, and the firing may be effected by a percussion-cap or other kind of priming; but I prefer to use cartridges with metal cases, which also contain the priming.

Fig. 2 of the drawings represents attached to the breech a hook, *g*, for withdrawing from the barrel the discharged cases of such cartridges.

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

Combining the swinging breech C and the hammer E by means of suitable shoulders, *d e*, on each, in such a manner that the hammer is made to form a brace to brace and lock the breech against the back-pressure consequent upon the explosion of the charge, substantially as herein specified.

LEONARD GEIGER.

Witnesses:

GEO. L. LITTLE,

JAMES N. TOWNSEND.