(No Model.)

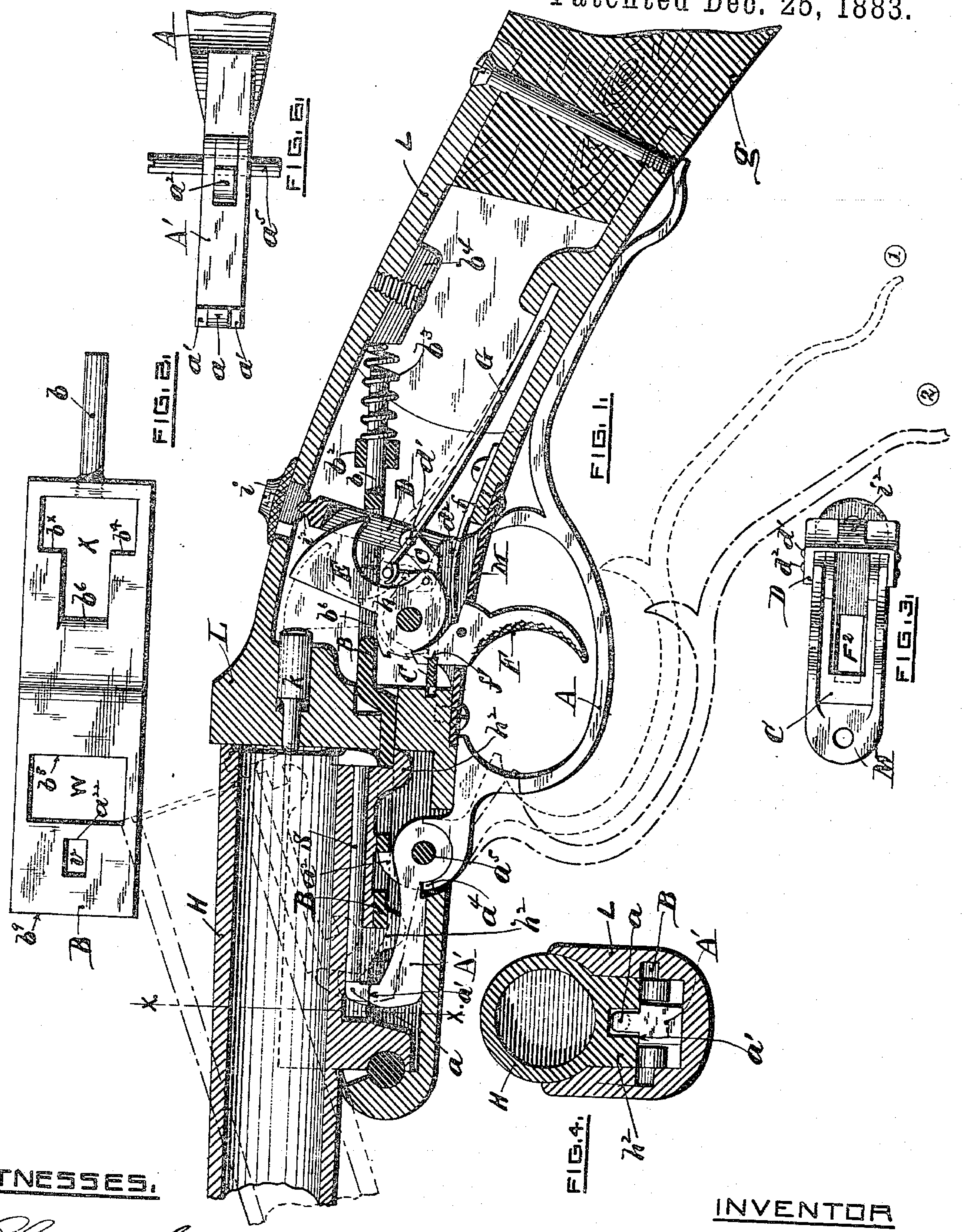
2 Sheets—Sheet 1.

W. H. DAVENPORT.

BREECH LOADING GUN.

No. 290,751.

Patented Dec. 25, 1883.



WITNESSES.

Charles Hannigan.

Charles P. Gay.

INVENTOR

William H. Davenport.

By Geo. H. Remington atty.

(No Model.)

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2 Sheets—Sheet 2.

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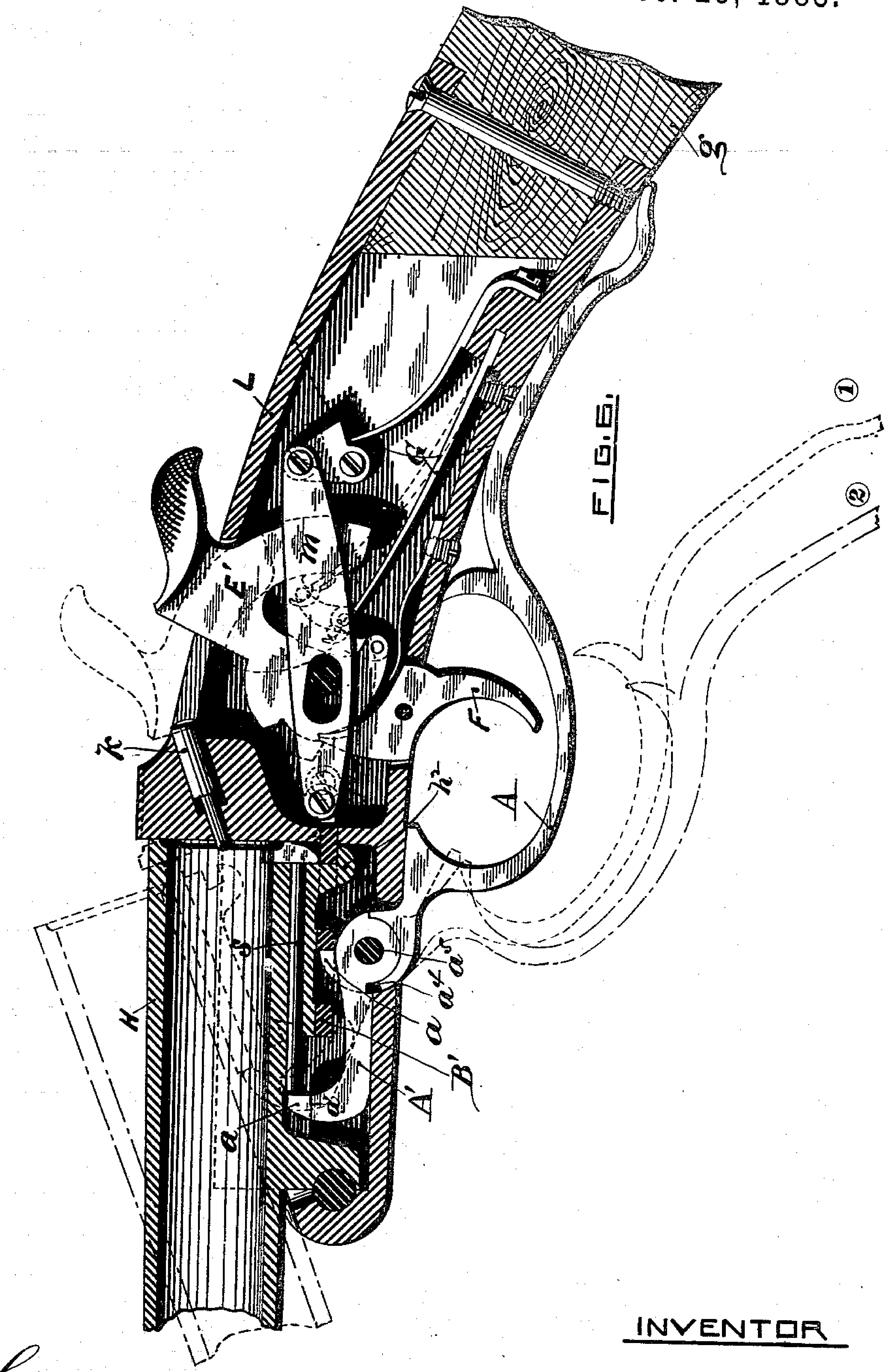

FIG. 6.

WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM H. DAVENPORT, OF PROVIDENCE, RHODE ISLAND.

BREECH-LOADING GUN.

SPECIFICATION forming part of Letters Patent No. 290,751, dated December 25, 1883.

Application filed May 31, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. DAVENPORT, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Breech-Loading Guns; 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.

My present invention relates to certain improvements in breech-loading guns or rifles; and it consists, essentially, in constructing the guard of a peculiar shape, which, in combination with the bolt and shell-extractor, is adapted to draw the bolt, break down the barrel, extract the shell, and cock the hammer, all by one operation of the said guard or lever, all as will be more fully hereinafter set forth.

In the accompanying two sheets of drawings, Figure 1 represents a longitudinal central section of the frame and adjacent parts of a breech-loading or "breakdown" gun provided with my improvements, as adapted for a hammerless gun, showing the parts in position preparatory to firing. Fig. 2 represents a plan view of the main locking-bolt. Fig. 3 represents a plan view of a device for locking the trigger. Fig. 4 represents a transverse section through the gun on line *x x* of Fig. 1. Fig. 5 represents a partial plan view of the guard-lever. Fig. 6, Sheet 2, represents my improved guard-lever and connections as adapted for use in a hammer-gun.

The following is a more detailed description of the parts constituting my invention, and the manner of operating the same.

L in the drawings, Fig. 1, represents the metallic frame of a "hammerless gun," so called, which externally is of ordinary form, and connected with the barrel H by lugs, &c., in any common manner.

B represents the locking-bolt, which securely connects the said barrel and frame together. Said bolt is provided with a series of openings, *x*, *w*, and *v*, therein, the former, *x*, being adapted to receive the hammer and safety or trigger locking device, the opening *w* is to receive a lug, h^2, of the barrel H, while the opening *v* is adapted to receive the end of the lever-guard for operating the bolt.

A represents the guard or lever, which is elongated, and extends rearward, as shown. Said lever is pivoted and connected with the frame L by means of the pin a^5. The lever is also provided with a projection, a^2, (see Figs. 1 and 2,) which is adapted to engage with and operate the bolt B at a^{22}. (See Fig. 2.)

A′ represents an auxiliary or supplemental lever, which is also connected with the frame L by the pin a^5, before referred to. Said lever A′ is provided with a projection, *a*, at its front or forward end for working the extractor *s*. The lever is further adapted to engage its shoulders a' with the lugs h^2 of the barrel when used for breaking down the barrel.

E represents the hammer, which is operated in firing by the spring G and stirrup *h*, as common.

M represents a plate, to which the trigger F, hammer E, safety push-lever D, and catch C are all fitted and attached, the whole being adapted to be inserted through an opening therefor in the frame L, and secured thereto by screws, as shown.

Now, by assuming all the parts to be in the position shown, ready for firing, the operation would be as follows: To fire the gun, I push the sliding block *i* forward to the end of the slot in the frame, which movement forces the safety-catch C out of the notch *f′*, thereby allowing the trigger to be operated for exploding the shell.

I will now explain the operation of breaking down the barrel after firing. With the thumb and fingers grasp the guard-lever A at the rear of the trigger, and bring it (the lever) down to the position 1, (shown by dotted lines,) which movement causes the bolt B to be forced backward beyond the lugs h^2 by means of the projection a^2 of the lever pressing against the surface a^{22} of said bolt. I now depress the lever A still farther, to the position 2, (also shown by broken lines,) which causes the end a^4 of said lever to engage with the supplemental or breakdown lever A′, (see Fig. 1,) thereby forcing the outer end of the latter lever against the lugs of the barrel at a', Fig. 4, thus raising the end of the lever A′ and breaking down the barrel, as shown by dotted lines.

This latter movement also extracts the shell from the barrel by means of the projection a of the lever A′, engaging with the forward end of the extractor s, as shown. During this latter described operation the bolt B, which is provided with a stem, b, and spring b^3, is also forced farther rearward, when the edge b^6 thereof, coming in contact with the hammer E, forces the latter back to the "full-cock" position, the trigger F at the same time engaging with the corresponding notch of the hammer, after which the safety-catch C is forced into position. The lever A is now returned to its normal position by means of the spring b^3 and bolt B, after which a cartridge can be placed in the breech or counterbore of the barrel, the extractor at the same time sliding back into its recess with it. The gun is now closed by raising the forward end of the barrel, which motion causes the rounded edges of the lugs h^2 to engage with the bolt at b^8 and b^9, thereby forcing the bolt backward until said lugs pass through or by the bolt, when the spring b^3 returns the bolt home, thus securely and automatically locking the barrel, when all the parts will assume the position shown in Fig. 1 by full lines. The frame L may have a mark or symbol thereon to indicate "safety" when the trigger is locked, to be covered by the movement of the block i when unlocked for firing.

In Fig. 6 I have represented my improvement as applied to an external-hammer gun, the safety device being deemed unnecessary therewith. The bolt B is practically the same, although modified as regards the spring therefor. The operation, however, is the same as before described.

Although I have represented a single gun, my improvements can as readily be adapted for double guns.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a breech-loading fire-arm, the improved breech-operating mechanism herein described, consisting of the guard-lever A, supplemental lever A′, and spring locking-bolt B, said lever A being pivoted to the breech-frame L at a^5, and provided with the projection a^2, adapted to connect with and withdraw the said bolt, said lever being further provided with shoulders a^4, adapted to engage with the lever A′ for opening the gun, substantially as shown and specified.

2. The breech-loading fire-arm herein described, provided with the levers A A′, the free end of the latter provided with shoulders a', adapted to engage with the projection h^2 of the barrel for opening the gun, said lever A′ being further provided with the projection a, adapted to engage with and operate the shell-extractor s, substantially as shown and specified.

3. In a breech-loading fire-arm, the rectangular locking-bolt B, provided with openings v x and stem b, in combination with the guard-lever A, hammer E, and spring b^3, the latter adapted to close the bolt and lock the gun, the whole arranged substantially as shown and described.

4. In a breech-loading fire-arm provided with levers A A′, bolt B, barrel H, and frame L, the combination therewith of the plate M, adapted to receive the hammer E, trigger F, and safety locking device D C, said plate arranged and adapted to be inserted in the under side of the frame L, substantially as shown and set forth.

5. In a breech-loading fire-arm, the guard-lever A, provided with the projection a^2, in combination with the spring locking-bolt B and hammer E, substantially as shown and set forth.

6. In a breech-loading fire-arm consisting of the frame L and barrel H, adapted to receive the shell-extractor s, the combination therewith of the levers A′ and A, adapted, respectively, to operate said extractor s and engage with the rectangular spring locking-bolt B, substantially as shown and described.

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

WM. H. DAVENPORT.

Witnesses:
WM. R. DUTEMPLE,
CHAS. HANNIGAN.