

C. O. WOOD.

2 Sheets—Sheet 1.

Breech-Loading Fire-Arm.

No. } 46, {
31,050. }

Patented Jan. 1, 1861.

Fig. 1

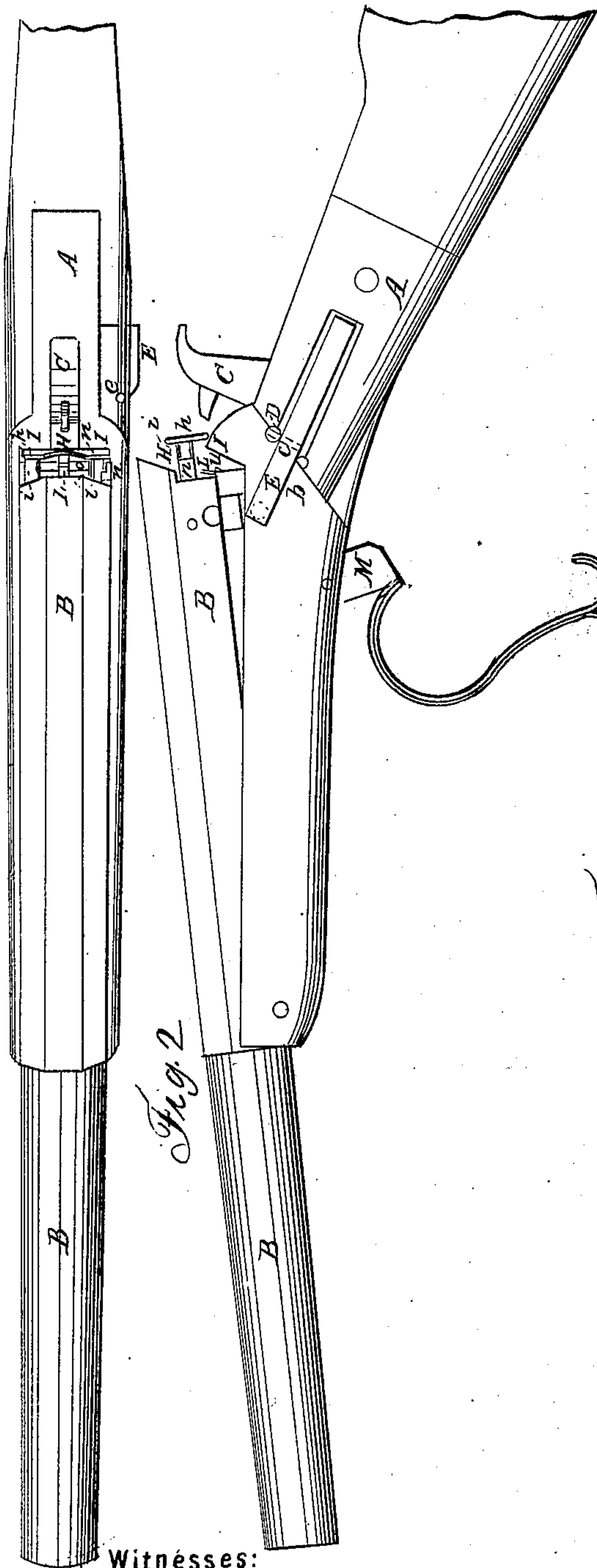


Fig. 2

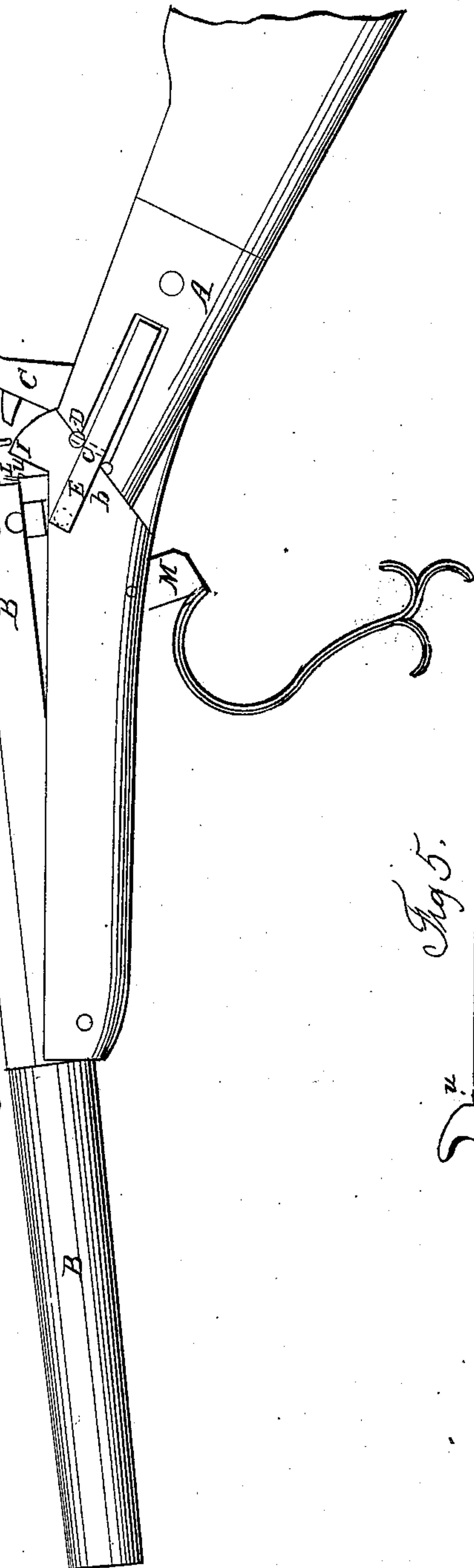
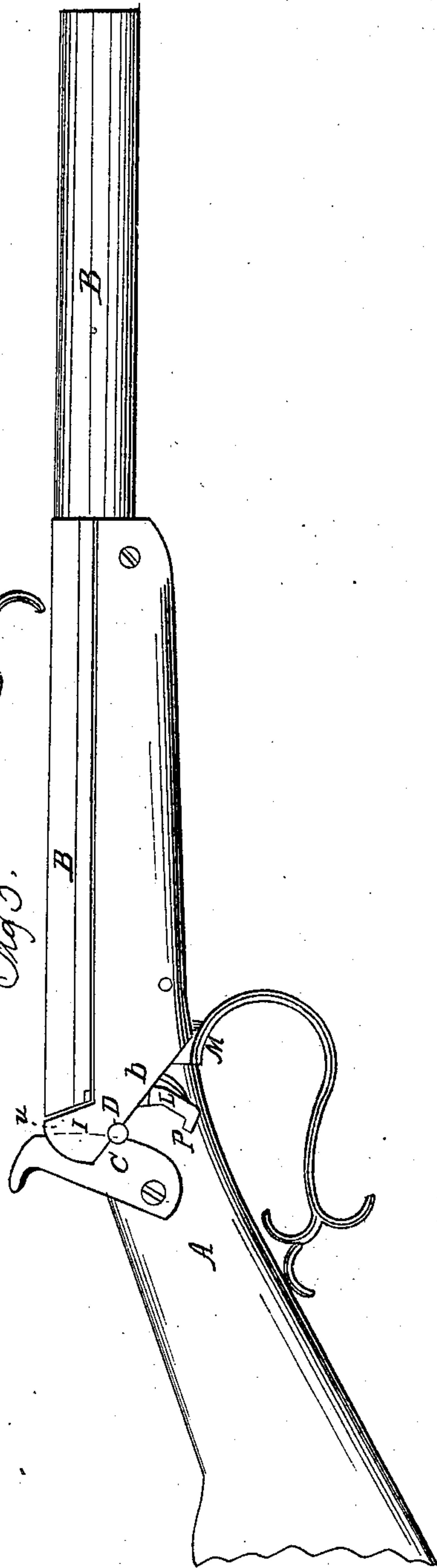


Fig. 5



Witnesses:

V E N Eddy
F D Hale Jr

Inventor:

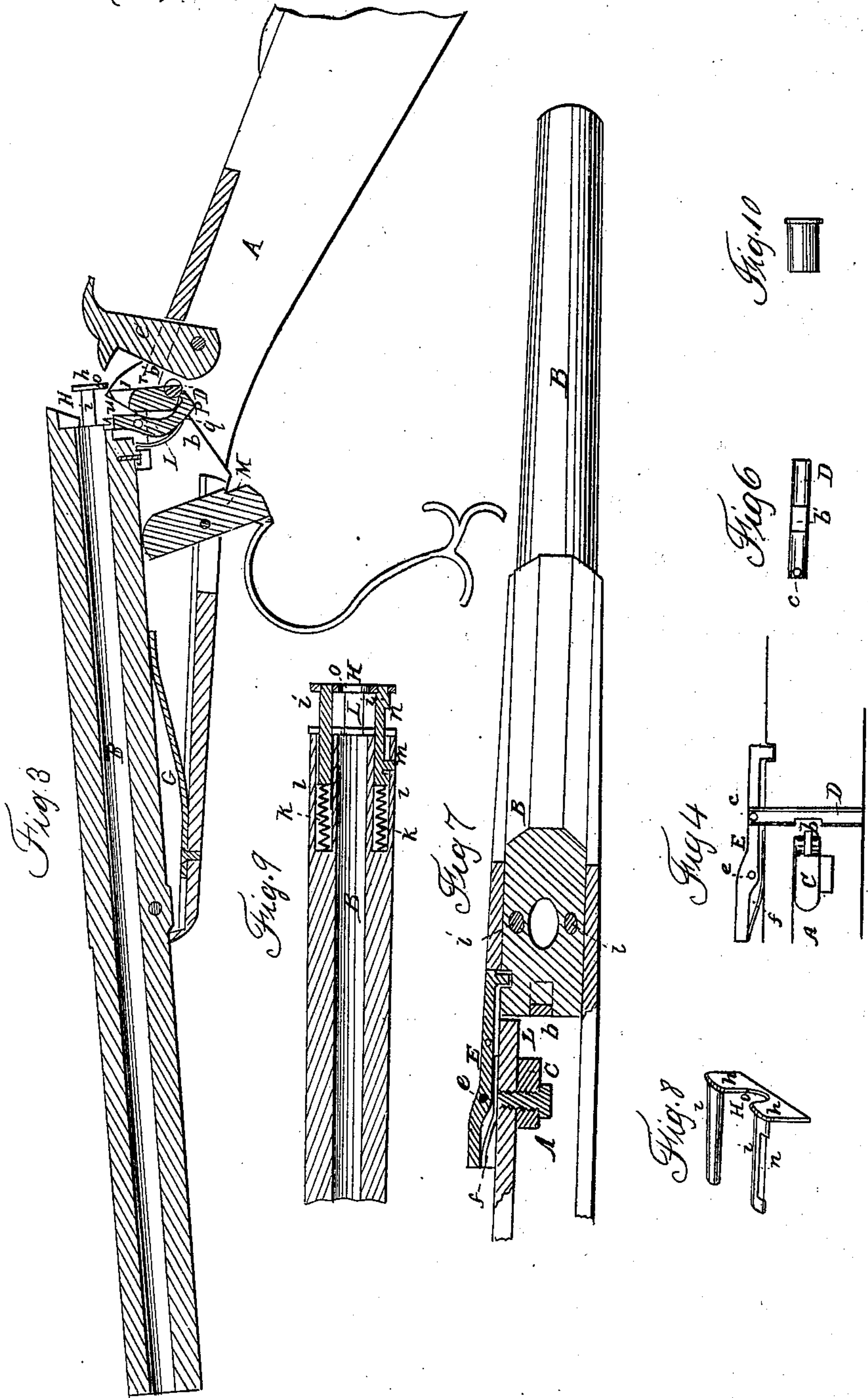
Corbin C. Wood

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Breech-Loading Fire-Arm.

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R. H. Eddy
J. P. Hale Jr.

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UNITED STATES PATENT OFFICE.

CORBIN O. WOOD, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. **31,050**, dated January 1, 1861.

To all whom it may concern:

Be it known that I, CORBIN O. WOOD, of the city and county of Worcester, and State of Massachusetts, have invented certain new and useful Improvements in Breech-Loading Fire-Arms; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a side elevation, and Fig. 3 a longitudinal section, of a breech-loading gun provided with my invention, the rear part of the barrel being exhibited in such figures as elevated or raised out of the stock and into a situation to receive a cartridge. Fig. 4 is a top view of the estopping-pin and the lever of the mechanism for latching the barrel.

In the drawings, A denotes the stock, (or a part thereof,) and B the barrel, of a fire-arm, the said barrel being so hinged or jointed to the stock at the front part thereof as to be capable of being either raised out of the stock and above the breech *b* thereof, as exhibited in the said figures, or of being depressed into the stock, as represented in Fig. 5, which is a side view of the piece or fire-arm, with its barrel closed down into the stock.

The percussion-hammer C is arranged as shown in the figures, and in order to operate it should be constructed with a notched bottom and have a mainspring and trigger applied to it in the ordinary manner, these latter not being exhibited in the drawings. In front of the said hammer, and extending transversely through the stock, there is an estopping-pin, D, which is furnished with a notch, *b'*. (See Fig. 4 and also Fig. 6, the latter of which is a side view of the pin.) Near its outer end the said pin has a small stud, *e*, which enters a corresponding hole made in the upper edge of a lever-catch, E, which is arranged in or on one side of the stock, and serves to lock or catch the barrel into the stock. This lever-latch is shown more particularly in Fig. 7, which is a longitudinal section of it, the stock, and the barrel, the latch having its fulcrum at *e* and being provided with a spring, *f*, for maintaining it (the latch) in engagement with the barrel. By so pressing on the heel of the lever-latch as to force such heel inward the said latch will be thrown out of engagement with the barrel, and so as to leave a spring, G, (placed in the stock,) free to act and produce

the elevation of the breech end of the barrel. While the hammer is down, it extends within the notch *b'* of the estopping-pin D, and thereby prevents any movement of the latch. The object of this will be hereinafter more fully explained. The pin D prevents the hammer from exploding the priming of a cartridge when the barrel may not be close down or properly latched on the stock. The rear or breech end of the barrel is open and provided with a slide-rest, H, which consists of a notched plate, *h*, and two pins or slides, *i i*, extended from it, as shown in the drawings, and particularly in Fig. 8, which is a perspective view of the said part H. The two legs or pins *i i* enter and slide freely in a longitudinal direction in the barrel and against one or more springs, *k k*, arranged within apertures *l l*, which receive such parts *i i* (see Fig. 9, which is a horizontal section of the slide-rest H) and the rear end of the barrel B. The rearward movement of the slide-rest is determined by a stop, *m*, against which the front end of a notch, *n*, formed in the side of one of the pins *i i*, brings up during a recession of the slide-rest. The center of the segmental notch *o* of the slide-rest should be arranged in the prolongation of the axis of the barrel, the diameter of the notch being equal to that of the body of the cartridge, a side view of which is shown in Fig. 10.

The end of the barrel, when depressed into the stock, is covered by a breech, I, whose front face, *u*, is beveled or inclined relatively to the bore of the barrel, and acts as a cam to force the slide-rest toward the barrel while the latter is being depressed. The slide-rest not only performs the function of discharging the shell of the cartridge from the barrel while the rear part of the latter is being elevated out of the stock, but it also operates as a stop to prevent accidental depression of the barrel, and serves as a guide for the introduction of the cartridge into the barrel. While projecting over and upon the breech I, as shown in Figs. 2 and 3, the slide-rest estops the barrel from being accidentally depressed. Furthermore, there is a lever, L, hinged to the barrel, and having its upper end extending between the lower part of the slide-rest and the rear end of the barrel, the whole being as shown in Fig. 3. This lever has its lower arm furnished with a head or hook, *p*, and during the upward move-

ment of the barrel the lever is so borne against a cam, *q*, as to cause the upper arm of the lever to press against the slide-rest and insure its recession. Thus, in case the springs of the slide-rest should fail to start it backward at the proper time, the lever *L* and the cam *q* will cause it to recede. The hook of the lever, by contact with the lower part, *r*, of the breech, will arrest the upward movement of the barrel.

A guard-lever, *M*, is applied to the stock and barrel, as shown in the drawings, its object being to enable the barrel to be moved upward in the stock should the force of the spring *G* at any time not be able to overcome the friction of the slide-rest against the cam or inclined part of the breech *I*.

From the above it will be seen that should either the breech or the slide-rest become so fouled at any time by the explosion of one or more cartridges as to materially hinder either the barrel from being elevated or the slide-rest from receding, as required, we possess in the lever *L* and its cam *q* and in the lever *M* means of overcoming such difficulties. While the hammer is down, it will so extend over such slide-rest as to prevent the barrel from being thrown up and out of the stock. By causing the hammer, when down, to lock the apparatus

by which the barrel is latched to the stock, we insure the elevation or cocking of the hammer preparatory to the barrel being thrown up, for as a person, in making an attempt to work the lever of the barrel-latching apparatus, will find it held firmly, so as to be immovable, he will thus be warned that the hammer must be raised out of the way of the cartridge and the slide-rest before the latch-lever *E* can be moved on its fulcrum.

I do not claim, in connection with the barrel of a fire-arm, a means or mechanism for expelling therefrom and while such barrel is being raised at its breech a cartridge or the shell or remains thereof; nor do I claim the application of a guard-lever to the stock and barrel, for the purpose of effecting the elevation of the latter from the former.

I claim—

The arrangement and combination of the notched estopping-pin *D* or its equivalent with the percussion-hammer and the lever-latch or mechanism for latching the barrel.

CORBIN O. WOOD.

Witnesses:

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F. P. HALE, Jr.