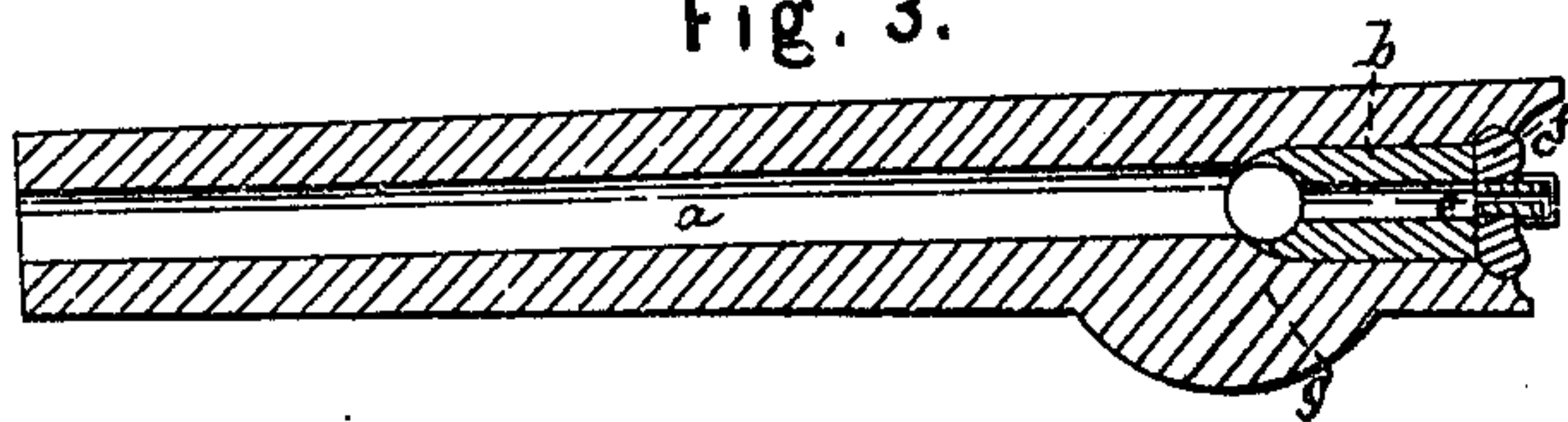
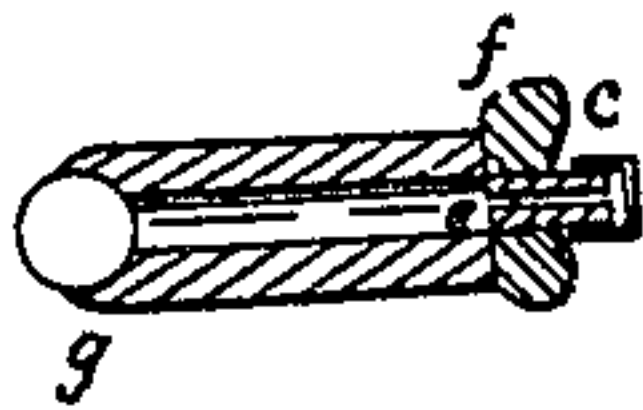
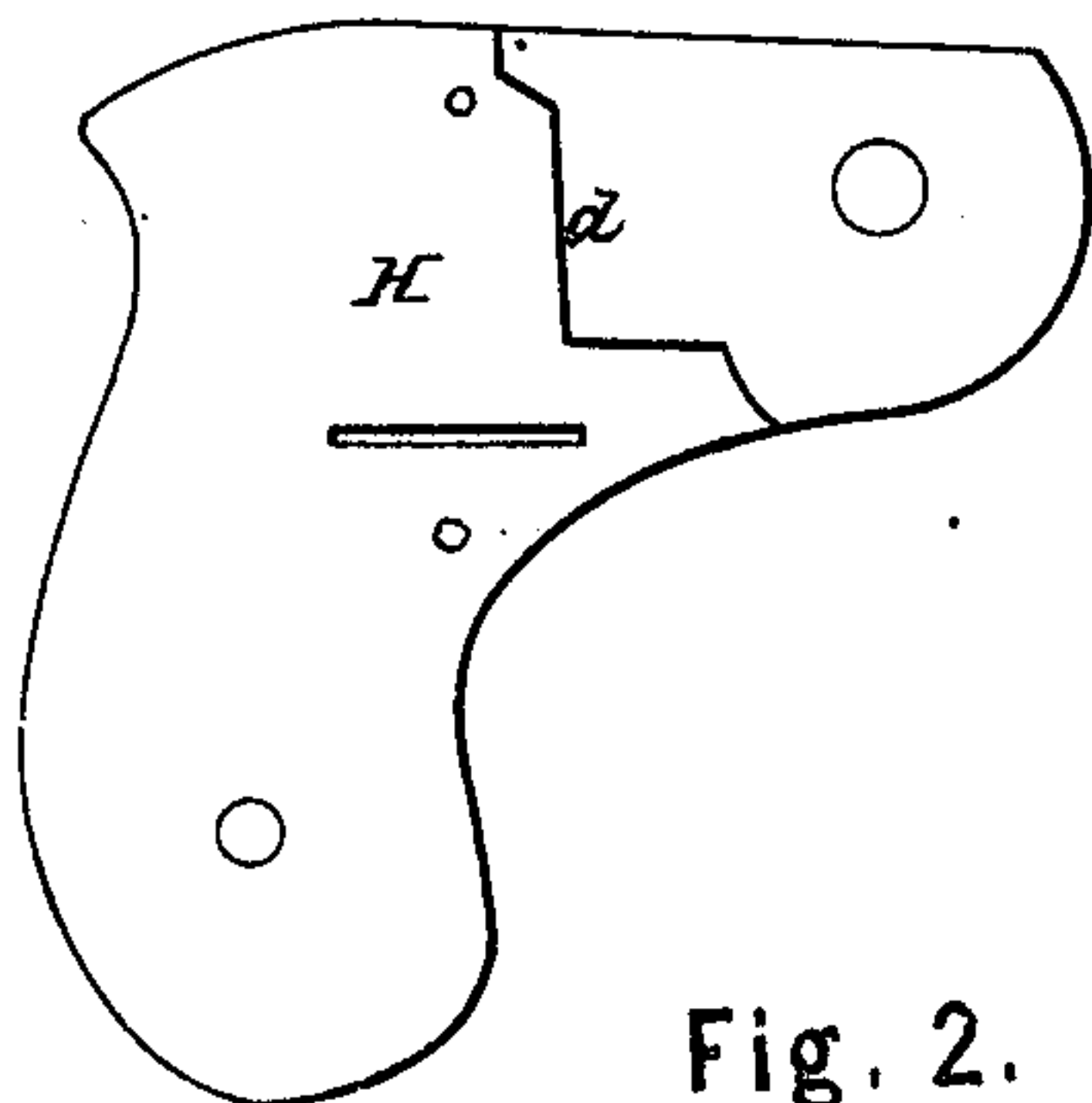
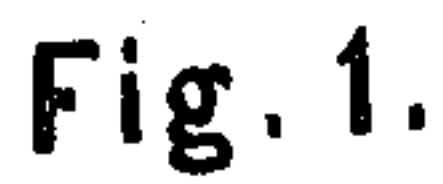


H. C. Fay
Breech Loader.

Patented May 22 1837.



H. C. Fay.
Breech Loader.

Sheet 2.
2 Sheets.

N^o 203.

Patented May 22 1837,

Fig. 4.

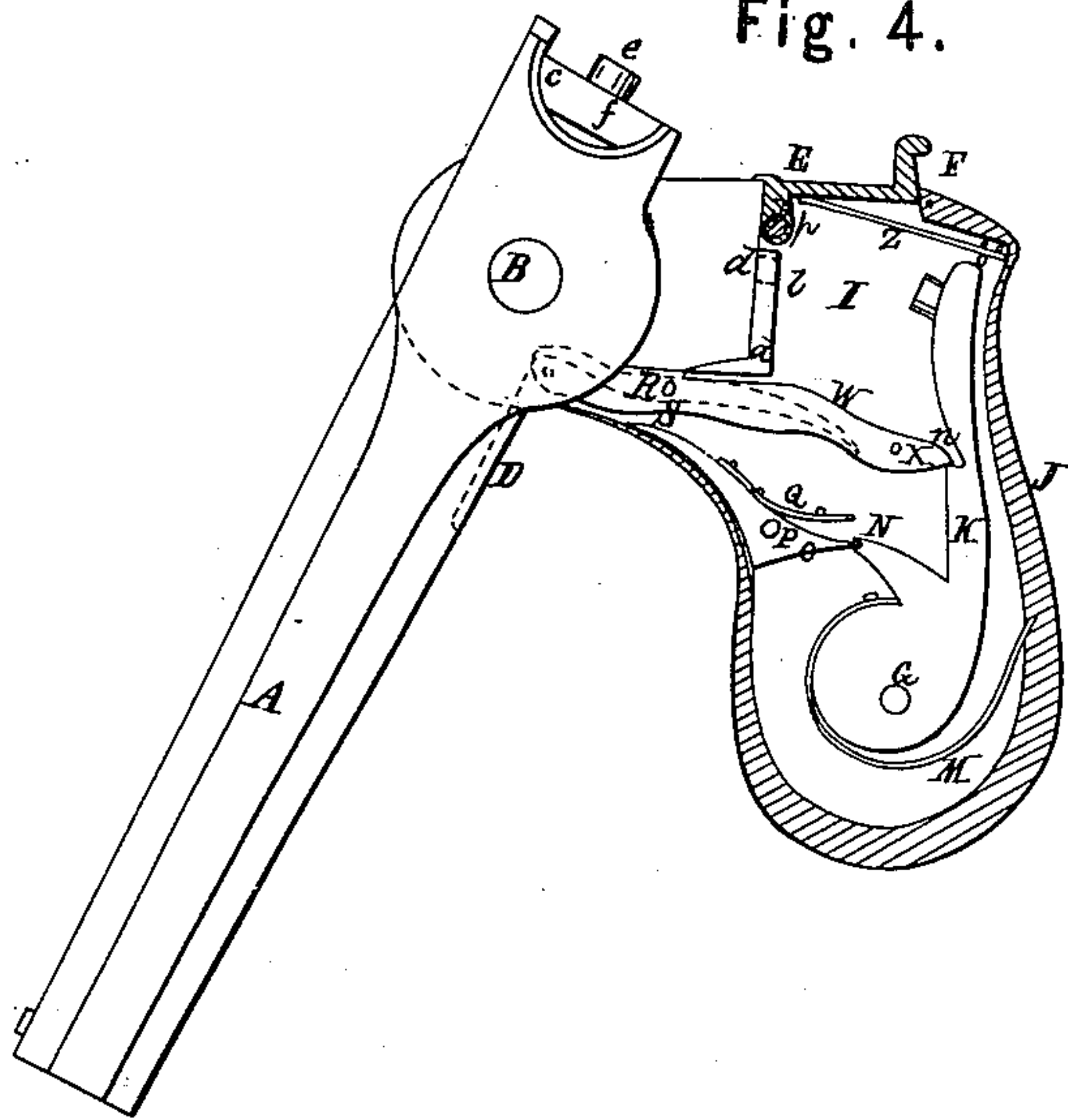
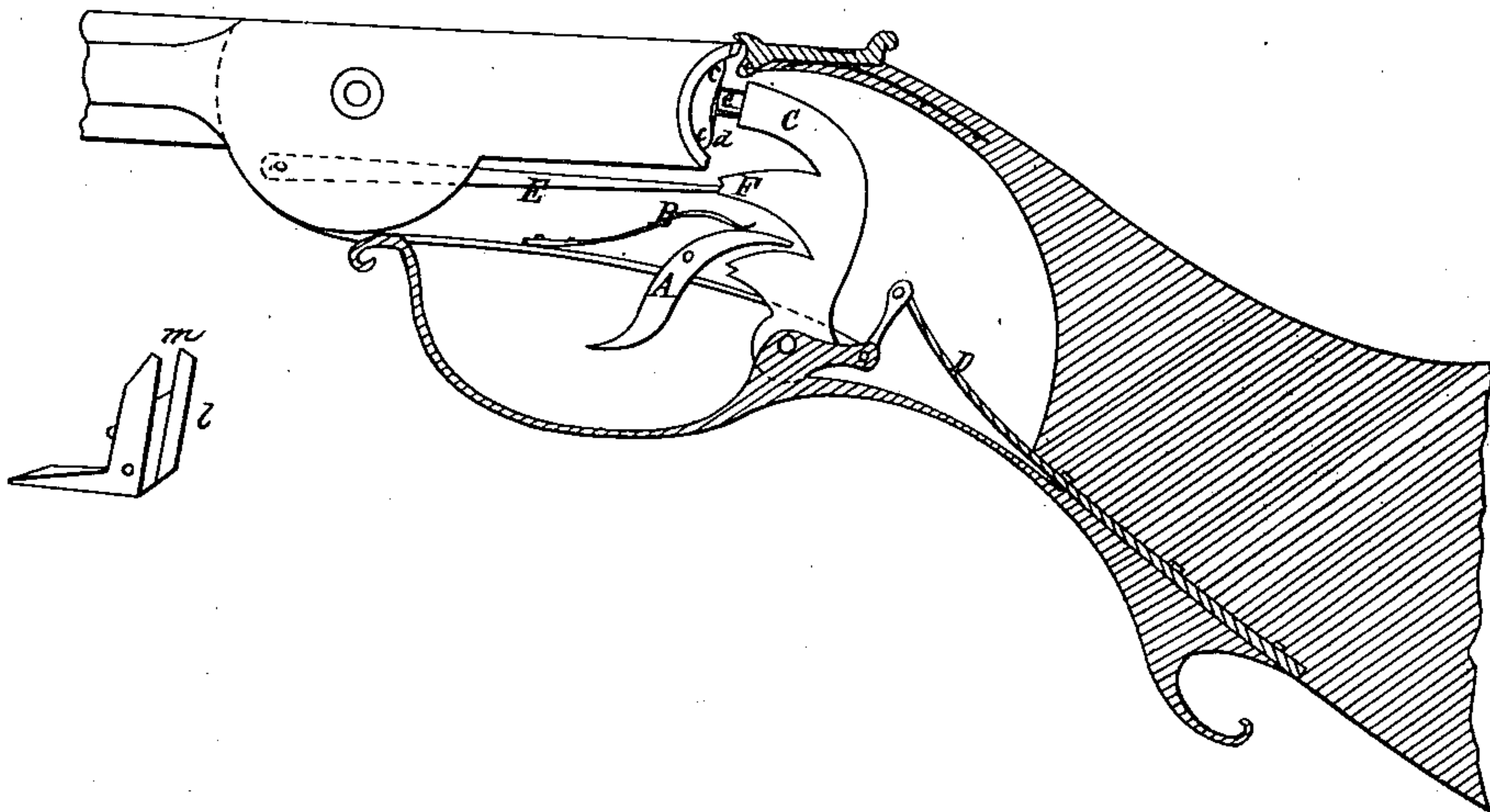


Fig. 5.



UNITED STATES PATENT OFFICE.

HENRY C. FAY, OF LANCASTER, MASSACHUSETTS.

IMPROVEMENT IN FIRE-ARMS AND ORDNANCE.

Specification forming part of Letters Patent No. 203, dated May 23, 1837.

To all whom it may concern:

Be it known that I, HENRY C. FAY, of Lancaster, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in the Construction of Fire-Arms and Ordnance, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 represents a view of a pistol cocked and ready to be discharged, in which A is the barrel; B, knobs or trunnions on which the barrel turns for throwing up the breech to receive the charge, and for cocking the gun, said knobs or trunnions projecting from the side of the barrel and turning in round apertures in the ends of the side plates of the stock; C, the stock or handle, made of separate metallic plates, or of metallic plates and partly covered with wood; D, the trigger; E, the catch for securing the barrel when in its seat; F, sight on the catch, by which to take aim, used also as a handle for disengaging the catch from the barrel; G, pivot of the hammer; p, pivot of the catch.

Fig. 2 is a view of the inside of the stock, one of the side plates being removed, showing the several parts of the secret lock hereinafter described. H is the side plate of the stock removed; I, opposite side plate in its place; J, rim placed between the plates, which is to be of sufficient depth to allow of the requisite chamber being formed between the plates at the wrist to receive the lock, and is continued on the under side as far as the joint, and on the upper side as far as the sight; l, partition to prevent pieces of the cap and the smoke from the vent entering the chamber containing the lock; m, notch or aperture in the partition to admit the end of the hammer to pass in striking the cap; K, the hammer, turning on a pivot, G, having a notch, n, in the edge toward the barrel to receive the end of the piston; M, mainspring for driving the hammer; N, notch in the hammer to receive the end of the dog to cock it; O, the dog, turning on a pivot, P; Q, spring for pressing the dog into the notch N of the hammer; R, a lever (represented by dotted lines) extending from the trigger to the dog for raising it from the notch of the hammer; S, fulcrum of the lever; T, the trigger thrown out from a recess on the

under side of the barrel ready to be drawn toward the breech for firing; U, pivot of the trigger, which also serves as the pivot of the piston; V, enlarged end of the trigger for bearing upon one end of the lever, and depressing the other end upon the dog for disengaging it from the hammer; W, slide or piston for cocking the hammer, attached to the barrel by the same pivot which passes through the trigger, said slide moving horizontally in grooves in the side plates of the stock, and bearing back the hammer to be cocked, the other end of the piston passing into the notch in the side of the hammer; X, one of the pins in the slide of the piston sliding in the groove in one of the side plates; Z, spring for bearing up the catch over the end of the barrel to secure it, the sight on the catch answering as a handle by which to disengage the end of the barrel when to be raised for a new charge.

Fig. 3 is a section of the barrel; a, the bore; b, part of the bore enlarged to receive the chamber containing the charge; C, end of the shifting-chamber resting firmly against a seat, d, formed in the stock to prevent a recoil of the shifting-chamber; e, cone or nipple over which the percussion-cap or priming is put, screwed into the end of the chamber from the inside; f, shoulder on the chamber; g, end of the chamber beveled or chamfered.

Fig. 4 is the breech of the barrel, thrown up in a position to receive the charge.

Fig. 5 represents a section of a musket in which the lever is omitted, and the trigger answers the purpose of a dog. A is the trigger and dog united; B, spring of the dog; C, hammer; D, mainspring; E, piston connected to the barrel and entering a notch, F, in the hammer.

Operation: To cock and charge the pistol, the spring-catch is pressed down, which disengages it from the breech. The barrel is then turned on the knobs, which raises the breech to receive the charge and depresses the muzzle at the same time and by the same movement. The barrel, acting as a lever, cocks the hammer by pushing back the piston attached to the under side of it against the hammer, which it moves back toward the rear of the stock, at the same time contracting the mainspring until the hammer arrives at a certain point, when the dog is pressed by its spring into the notch

near the lower end of the hammer, and thus cocks it. The metallic charge chamber or tube, ready charged and capped, is taken from the cartridge-box, (which contains any requisite number,) and is inserted into the breech of the barrel. The barrel is then brought down to its proper position for firing, and secured by the spring-catch, which slips over it, when it is ready to be discharged. The trigger attached to the barrel by the same pin that secures the end of the piston, being thrown out by the movement of the barrel, is pulled in the usual manner. This raises one end of the lever and depresses the other upon the long end of the dog, which it also depresses, while at the same time it raises the short end out of the notch of the hammer, and thus liberates it, when the hammer is driven by the mainspring against the percussion-cap, and the discharge takes place. In firing cannon or large fire-arms, instead of moving the barrel, the stock is depressed.

The invention claimed by the subscriber, and which is desired to be secured by Letters Patent, consists in—

Cocking the hammer simultaneously with raising the breech to insert the charge by means of the piston attached to the under side of the barrel receiving a horizontal movement from the depression of the muzzle, the barrel acting as a lever in pushing back the hammer and

contracting the mainspring; also, in screwing the cone or nipple into the end of the chamber or charging-tube from the inside instead of screwing it from the outside into the top or side, by which it is entirely concealed, and also protected from the weather and made strong and secure, the explosion of the percussion-cap being within the chamber of the stock, by which means the person who fires the piece is not incommoded by any flying particle of cap, nor by smoke from the vent at the moment of discharge; also, the lever R, extending from the trigger to the dog, in combination with the sliding piston; likewise the spring-catch E, for securing the breech of the barrel in its seat as located, in the manner represented in the drawings, and which may be made with or without a sight.

The principle of turning the barrel of fire-arms on trunnions, however, is not claimed, as ordnance has long been thus turned, nor is the method of charging at the breech, as this has long been known. Neither does he intend to claim the combined operation of throwing up the breech from the stock and charging with a metallic tube.

HENRY C. FAY.

Witnesses:

WM. P. ELLIOT,
S. A. ELLIOT.