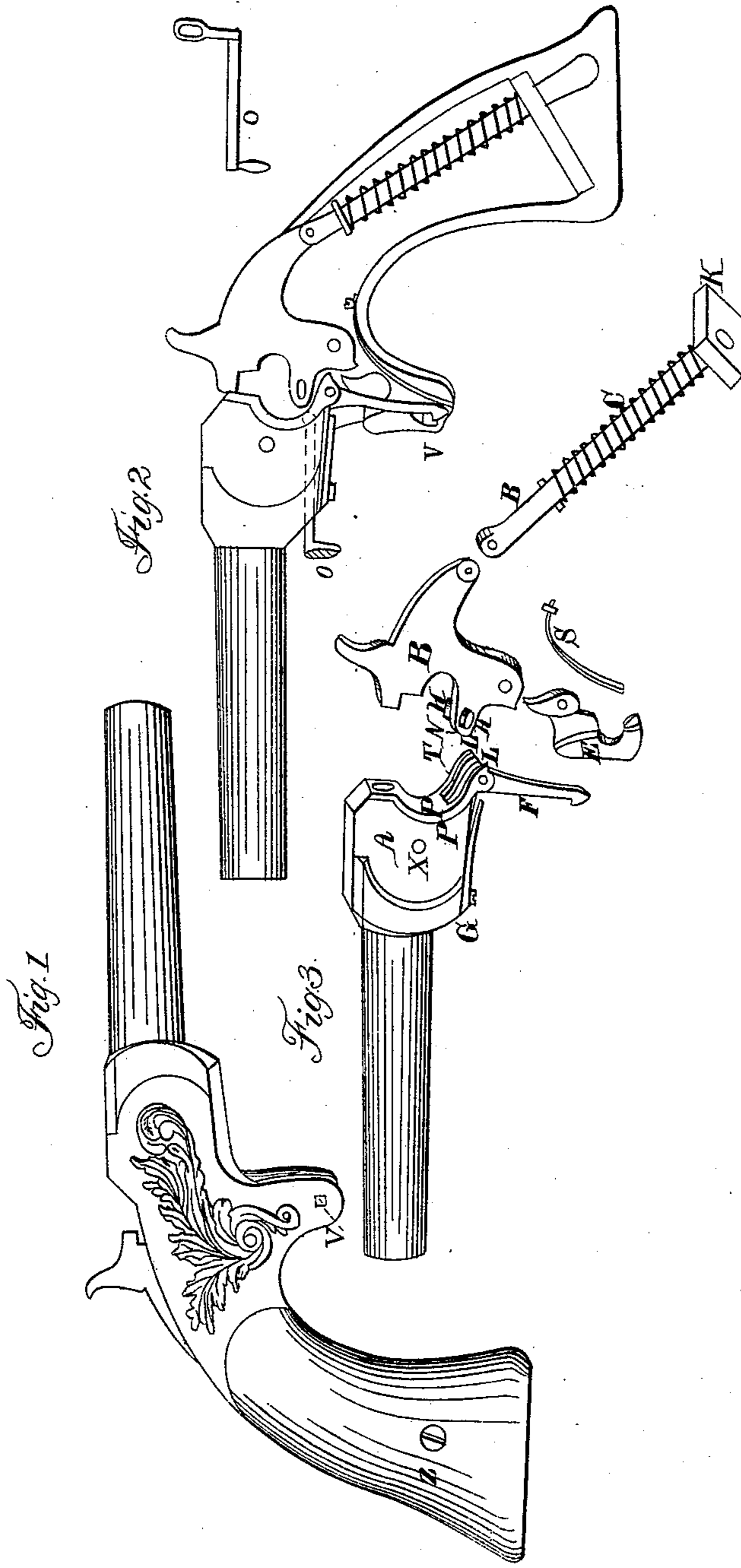


W. C. ELLIS.
Breech-loading Fire-arm.

No. 23,762.

Patented April 26, 1859.



Witnesses:
B. H. Sparks
C. Hooford

Inventor:
Willard C. Ellis

UNITED STATES PATENT OFFICE.

WILLARD C. ELLIS, OF SPRINGFIELD, MASSACHUSETTS.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 23,762, dated April 26, 1859.

To all whom it may concern:

Be it known that I, WILLARD C. ELLIS, of Springfield, county of Hampden, and State of Massachusetts, have invented certain new and useful Improvements in the Construction of Fire-Arms; and I do hereby declare that the same is described and represented in the following specification and drawings; and to enable others skilled in the art to make and use my improvements I will proceed to describe the construction and operation, referring to the drawings, in which the same letters indicate like parts in each of the figures.

The nature of my improvement consists in the means of providing for the removal of the cartridge-shell from the barrel after the explosion, and cocking, &c.

In the accompanying drawings, Figure 1 represents the arm entire. Fig. 2 is a perpendicular section. Fig. 3 is a perspective view of the parts detached.

I construct the barrel of this arm with an enlarged breech, as seen in A, Fig. 2. At the lower extremity of this breech is a double joint composed of the breech A, the lever P, and the hook F. This rear extremity of the barrel, it will be seen, passes out between the two side pieces of the lever P in two parts, T, which parts inclose the hook F.

The hammer B has on its front, and below the part which explodes the cap, a projection. N. On the side of this projection are seen the two lugs H H.

The sear E is shaped to receive the hook F within itself and the sear-case, directly behind which, and also within the sear-case, is the spring S. This spring is divided, so that one part acts on the sear, while the other acts on the hook F, to restore its hold on the bar in the sear-case V, Fig. 1.

The form of the lever P is shown in the drawings, the office of which is to throw out the exploded shell of the cartridge. It is operated by the points L L striking the lugs H H on the hammer, and is restored to its place

by the action of the spring G. The main-spring of the arm is simply a spiral wire, C, on the guide D, resting on the base K.

The operation of the arm is as follows: The grasp of the pistol is held firmly in the right hand, with the forefinger pressing hard on the sear to detach the hook F from the bar V. The left hand holds the barrel. The two parts are then broken downward and toward each other, by which the exploded cap is thrown out and the pistol cocked. The center on which this break is made is seen in the enlarged breech X, Fig. 3. Now, it will be seen that as the barrel is broken downward on the center X, Fig. 2, the ends of the lever P at L L strike the two lugs H H on the front of the hammer, and also that the projection N on the hammer is struck by the two points of the breech T, throwing the hammer backward to cock, and the lever P, moving in the same direction, throws out the exploded cap. The sear E acts in the double capacity of discharging the pistol when cocked by a light pressure, and of detaching the hook F by a harder pressure. After that is done, the two offices do not conflict with each other, since the light pressure on the sear does nothing after the discharge.

What I claim therefore, and desire to secure by Letters Patent, is—

1. The sear E, having the double action of firing the pistol and unlocking the hook F.
2. The lever P, in this or any other form substantially the same, in combination with the lugs on the hammer, as shown in the drawings, or with lugs on the sides of the pistol-frame.
3. The cocking of the pistol by the act of breaking down the barrel, in the manner substantially as described.

W. C. ELLIS.

Witnesses:

S. I. WILDER,
JEREMY W. BLISS.