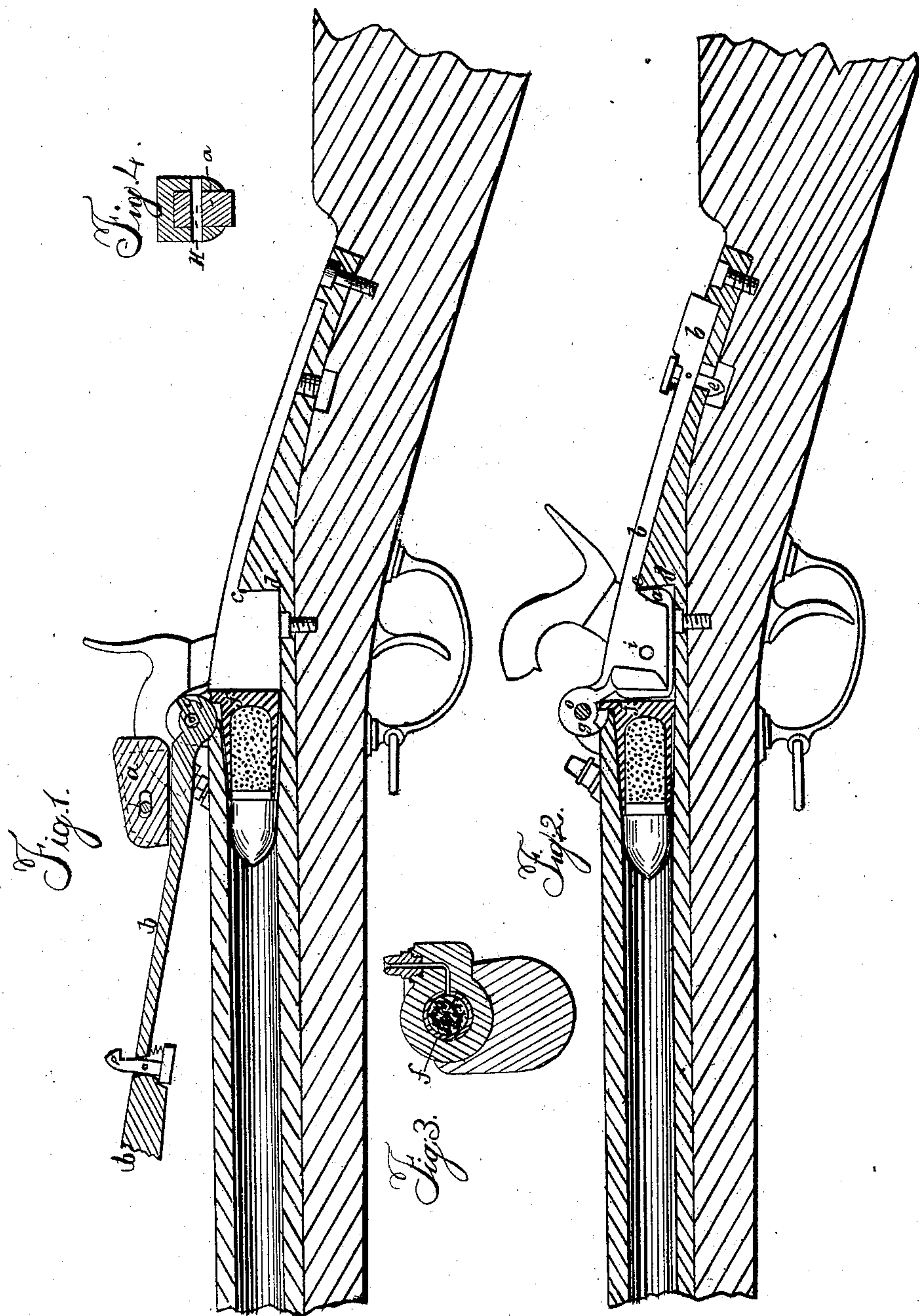


B. S. ROBERTS.
Breech-Loading Fire-Arm.

No. 36,531.

Patented Sept. 23, 1862.



Witnesses:

Josiah D. Smith
Edwin P. Cook

Inventor:

Benjamin S. Roberts
by
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Attys

UNITED STATES PATENT OFFICE.

B. S. ROBERTS, OF UNITED STATES ARMY.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. **36,531**, dated September 23, 1862.

To all whom it may concern:

Be it known that I, BENJAMIN S. ROBERTS, of the United States Army, have invented a new and useful Improvement in Breech-Loading Fire-Arms; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal section when the cartridge is not driven home; Fig. 2, a like section when the gun is ready to be fired. Fig. 3 is a cross-section showing the communication from the nipple to the cartridge. Fig. 4 is a cross-section of the cam or sliding wedge, hereinafter described.

My invention relates to that kind of breech-loaders which contemplate the use of metallic cartridge-cases, which are to be withdrawn from the piece after firing and used for an indefinite number of discharges.

b is a lever hinged firmly to the barrel of the piece at *o*. A sliding wedge, *a*, is attached to this lever by the pin *i*, which passes through a slot in the wedge, and thus allows the wedge a limited motion backward and forward. A solid shoulder, *c d*, is constructed, making the angle at *d* slightly acute. The parts are so proportioned and arranged that after the cartridge is inserted, as shown in Fig. 1, and the lever *b* is being brought to its position, as shown in Fig. 2, this sliding wedge will press upon the base of the cartridge-case, driving it into its chamber. The angle of the sliding wedge which is farthest from the hinge is so rounded or truncated as to glance over the shoulder *c*, and as the lever is brought home this wedge inserts itself so firmly between the rear end of the cartridge-case and the surface *c d* as to drive the cartridge entirely to its seat, and as the surface of the wedge which is in contact with the surface *c d* is nearly or quite parallel with that surface, the backward pressure arising from the discharge has no tendency to throw the wedge upward, so that the lever *b* would not be raised from its position, as represented in Fig. 2, even although it were not retained in that position by the catch *e*.

Upon the upper portion of the cartridge-case *f* is constructed a flange or projection, in which the corresponding jog or catch, *g*, which is constructed on the hinge, engages as the lever is thrown upward. This starts the cartridge-case from its seat, and as its external surface is made slightly conical, having once been started it is readily removed from the gun. When the lever is thrown back, as shown in Fig. 1, an opening is left sufficient for the convenient insertion of the cartridge with its case; but that opening is entirely closed by the lever when brought down to the position shown in Fig. 2.

Instead of using a cartridge-case as above described, I sometimes use a simple gas-check, which shall fully close the rear end of the chamber against the escape of gas. This gas-check may be attached by a proper joint to the forward end of the sliding wedge *a*, so as to work in and out by the mere movement of the lever *b*.

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

1. In a breech-loading gun in which the breech is opened and closed by the partial revolution of a lever around a center, the use of a sliding wedge working in combination with the lever, when such wedge has a longitudinal motion which is radial to the center of revolution of said lever, substantially in the manner and for the purpose above set forth.

2. The combination of the lever *b*, the wedge *a*, and the shoulder *c*, when operating in the manner and for the purpose above set forth.

Witness my hand and seal, in the matter of my application for a patent for improved breech-loading fire-arms, this 19th day of July, A. D. 1862.

B. S. ROBERTS. [L. S.]

Witnesses:

GUSTAVUS DIETERICH,
EDWIN S. JACOB.