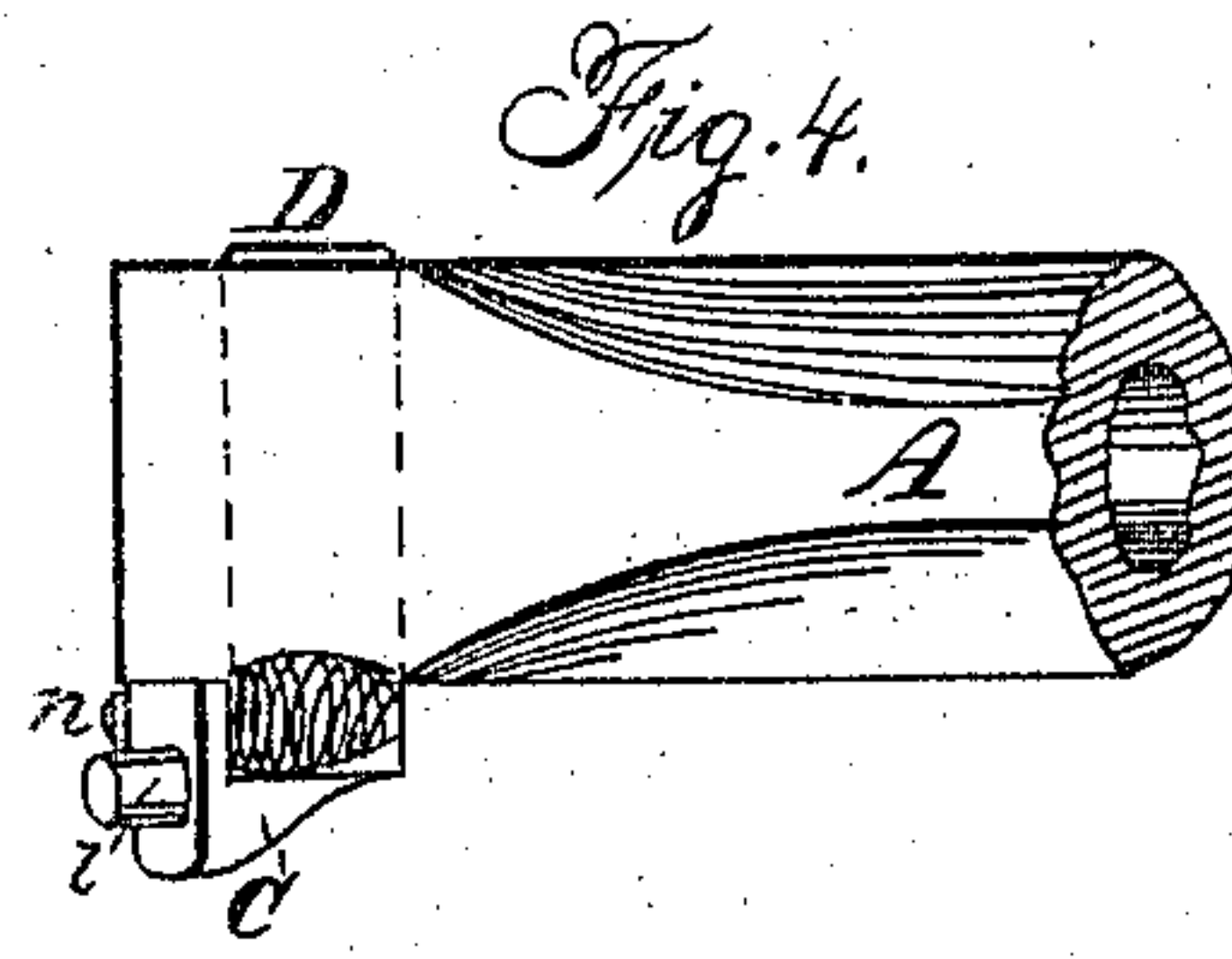
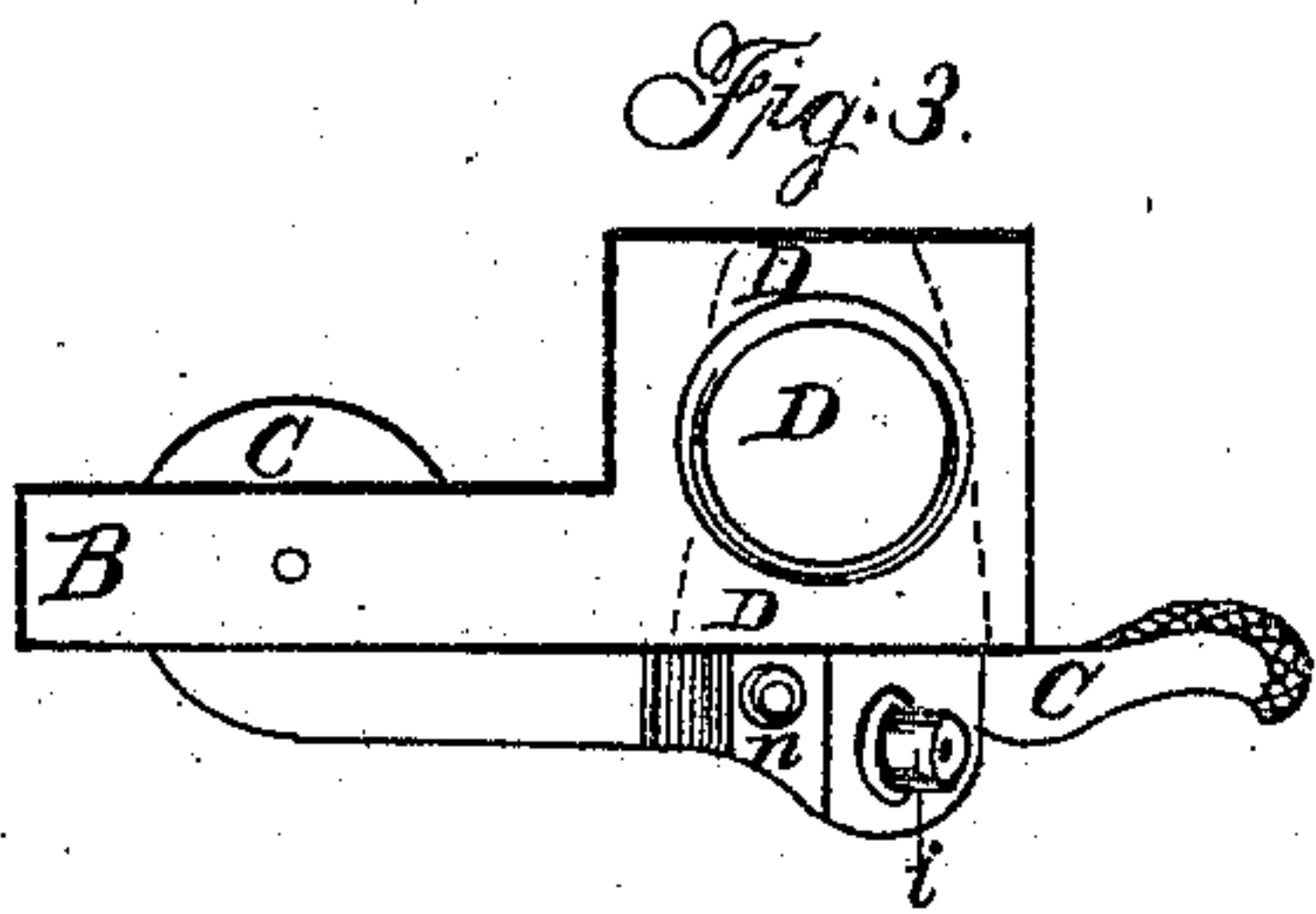
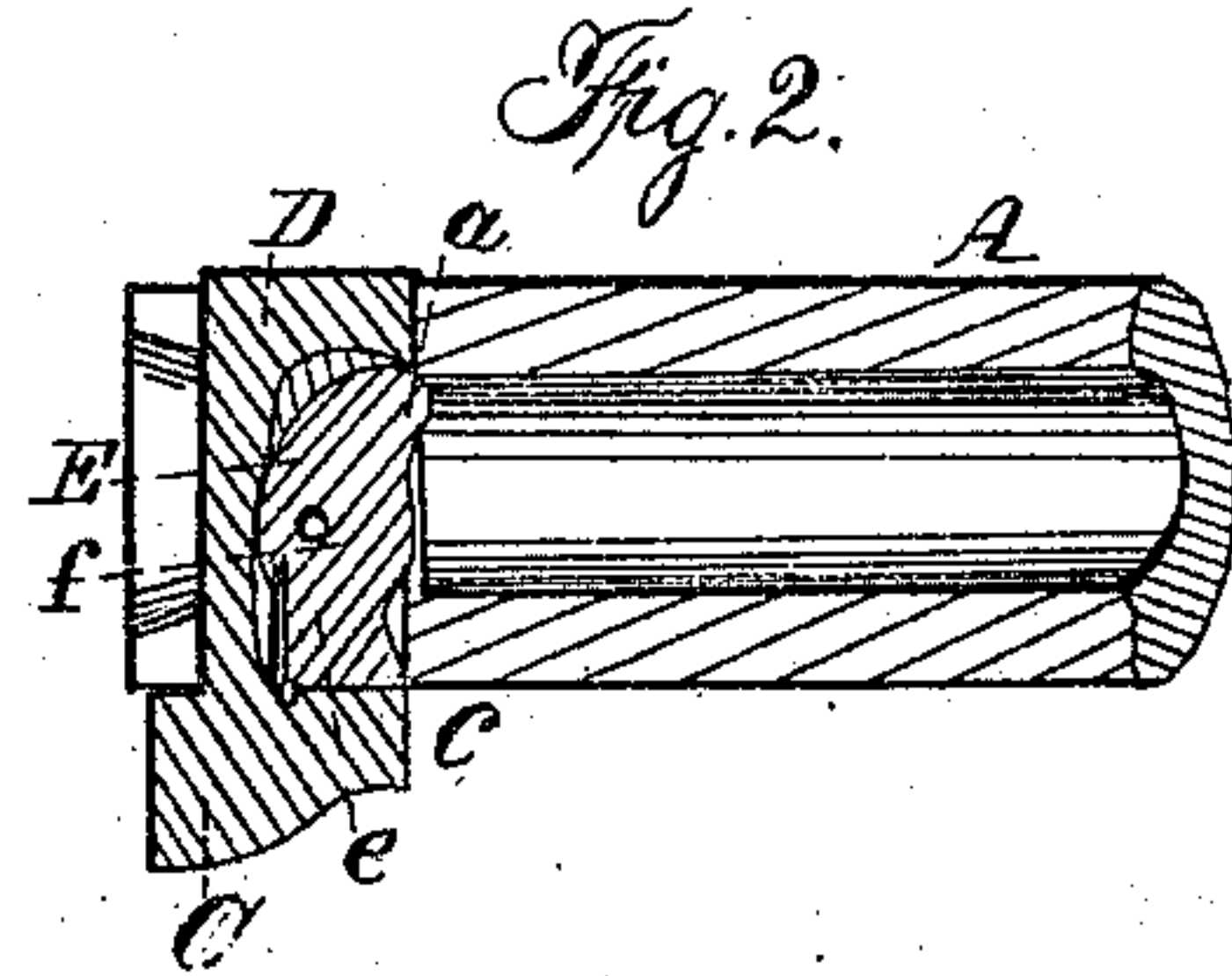
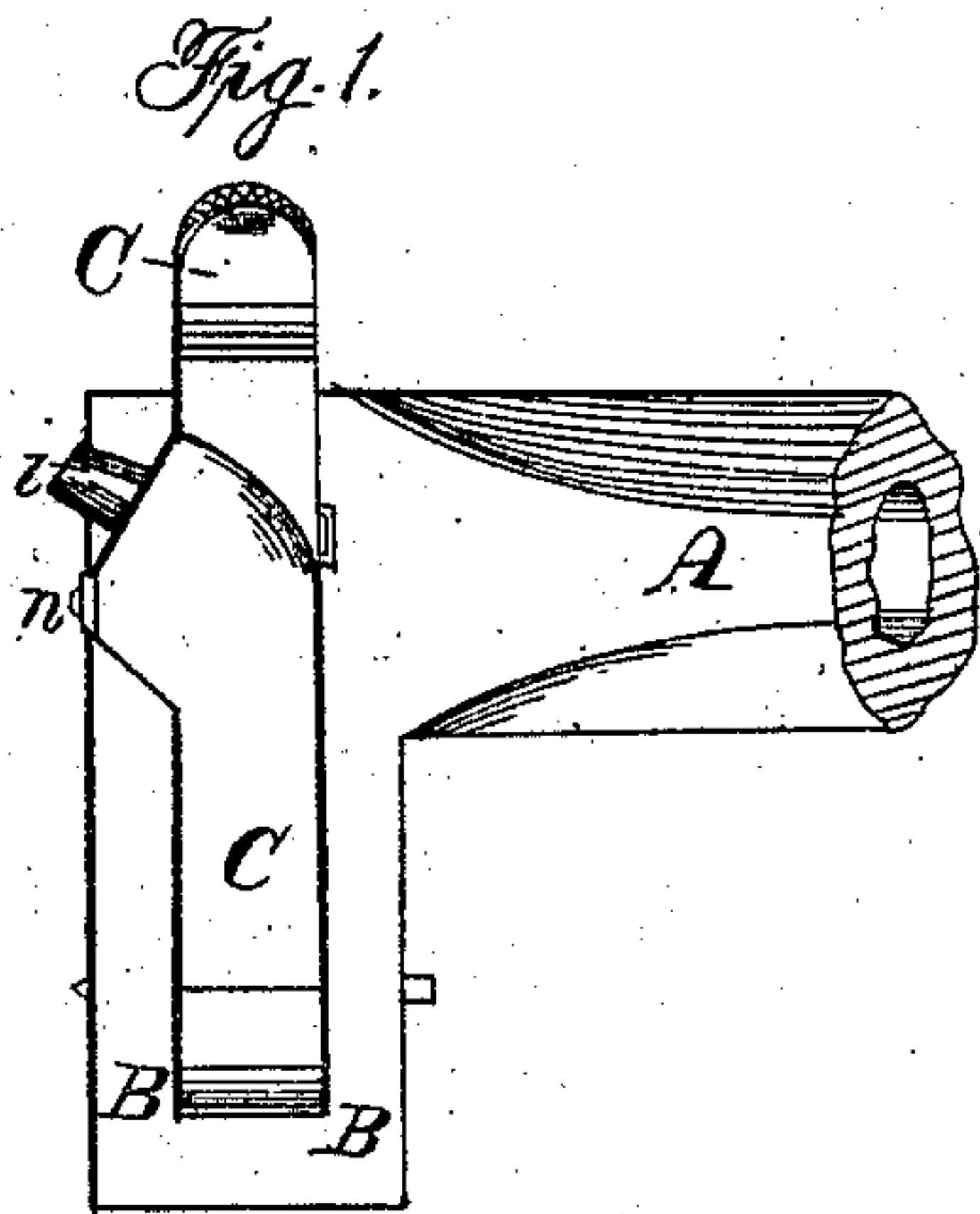


J. RIDER.

Breech-Loading Fire-Arm.

No. 46,532

Patented Feb. 21, 1865.



Witnesses.
Ja. D. Potter } *Joseph Rider*
A. W. Sullivan } By atty. *A. D. Stoughton.*

UNITED STATES PATENT OFFICE.

JOSEPH RIDER, OF NEWARK, OHIO, ASSIGNOR TO HIMSELF AND E.
REMINGTON & SONS, OF ILION, NEW YORK.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. **46,532**, dated February 21, 1865.

To all whom it may concern:

Be it known that I, JOSEPH RIDER, of Newark, in the county of Licking and State of Ohio, have invented certain new and useful Improvements in Breech-Loading Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a side view of a portion of a barrel and a hammer connected therewith. Fig. 2 represents a section through the hammer and barrel to show the device for exploding the cartridge. Fig. 3 represents a rear view of the hammer and barrel, and Fig. 4 represents a top plan thereof.

Similar letters of reference, where they occur in the separate figures, denote like parts in all the drawings.

My invention relates to that class of breech-loading fire-arms in which the hammer performs the double duty of hammer and breech-plate.

In fire-arms heretofore constructed, in which the hammer is both hammer and breech-plate, the hammer has been hung in rear of the barrel, and swings backward and downward far enough to clear the rear of the bore of the gun, so as to easily insert the cartridge.

My invention consists in hanging the hammer at the side of the arm and causing a nose or projection upon it to fly into a mortise in the rear of the barrel, which firmly and rigidly holds it against the recoil force of the explosion and serves as a breech-plate; and my invention further consists in combining with the hammer, or the projecting portion thereof, a spring trigger or lever or its mechanical equivalent, which is caused to strike or impinge upon the cartridge by the force of the hammer, or its nose or projection entering the mortise in the barrel, and thus ignite the cartridge.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A represents a portion of the rear end of a gun-barrel or of a pistol-barrel, to which a projection, B, may be connected or attached, to hang the hammer C to. The barrel is bored through and through, and transversely of the

bore of the arm, and through the barrel, or through a breech-block attached to or behind the barrel, I make a mortise, of a pyramidal or wedge-shaped form, into which a similar-shaped nose or projection, D, (shown in dotted lines in Fig. 3,) on the hammer enters when the hammer is let fly, and this projection becomes the breech-piece or block that closes the bore of the gun and takes the recoil or force of the explosion. The mortise into which this projection or breech-piece shoots is made in the solid metal, and hence said breech-piece is very securely braced against the force of the discharge. To this projection or breech-piece D upon the hammer I attach a pivoted and spring trigger or lever, E, Fig. 2, which has two protuberances, *a c*, upon it, the former of which, *a*, strikes or is made to impinge upon the cartridge and thus explode it, and the latter causes the former to so strike or impinge by itself coming in contact with the barrel or breech-block, when the projection is thrown into its mortise by the recoil of the mainspring on the releasing of the sear by the trigger.

e is a spring behind the trigger or lever E, and *f* the pivot on which it works.

I have shown a nipple and a pin on the hammer, as at *i n*, by which the arm could be made to be discharged by a cap or by the pin being made to strike the cartridge; but as this would involve the necessity of another piece to strike the cap or pin I do not include them in my present application for a patent.

Having thus fully described my invention, what I claim is—

1. Combining with a hammer that is hung upon the side of the arm and moves at right angles to the bore of the gun a nose or projection, which, shooting into a mortise through the barrel, forms a breech-piece, substantially as and for the purpose described.

2. Combining with such a hammer or the projection thereon a pivoted trigger or lever for striking or impinging upon the cartridge, and thus exploding it simultaneously with the closing of the bore of the arm, substantially as herein described.

JOSEPH RIDER.

Witnesses:

A. B. STOUGHTON,
HAVER FENDRICH.