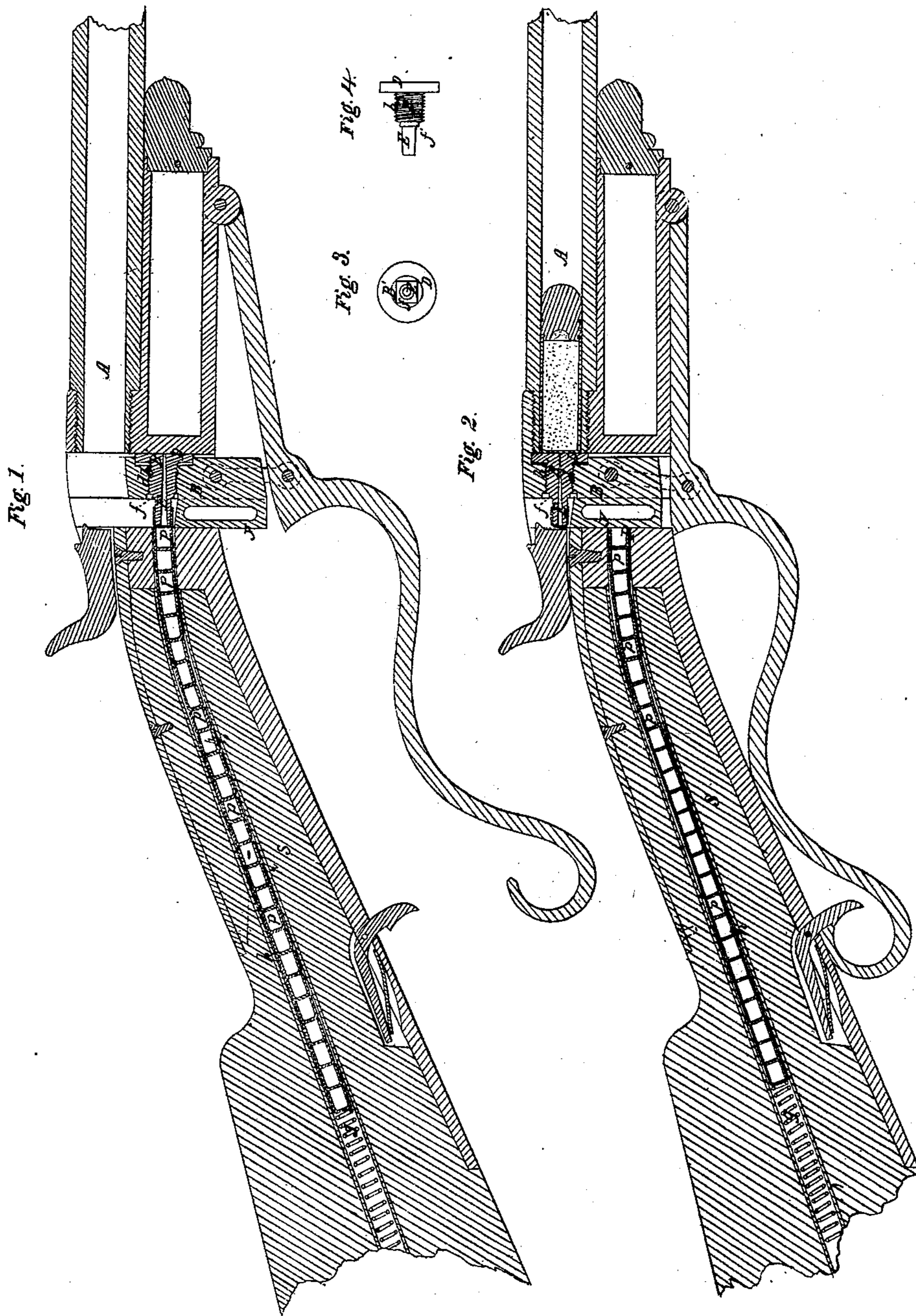


F. CURTIS.
Breech-loading Fire-arm.

No. 22,940.

Patented Feb. 15, 1859.



Witnesses,
F. P. Hall
Arthur Hill

Inventor,
Fredrick Curtis

UNITED STATES PATENT OFFICE.

FREDERICK CURTIS, OF SAUGUS CENTRE, MASSACHUSETTS.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 22,940, dated February 15, 1879.

To all whom it may concern:

Be it known that I, FREDERICK CURTIS, of Saugus Centre, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Breech-Loading Fire-Arms; and I do hereby declare the same to be fully described and represented in the following specification and the accompanying drawings.

It is well known that the objections to most breech-loading fire-arms are that the joint at the end of the barrel is apt to become worn or to get corroded and cause the parts to work loose, and consequently such part has to be renewed or repaired, in order to enable the gun or fire-arm to be operated to good advantage.

My invention has reference to the breech-slider used in connection with the breech of a fire-arm; and the nature of such invention or improvement consists in a movable breech separate from the breech-slider, and arranged and applied therein so as to be adjustable to the rear end of the barrel, substantially in manner and for the purpose as hereinafter described; also, in a peculiar arrangement of the priming-nipple and the touch-hole thereof with respect to the movable adjustable breech applied to the breech-slide, as hereinafter specified, or with respect to the same and a primer arranged in the stock, substantially as will be explained.

In the drawings, Figure 1 denotes a longitudinal section of a gun constructed in accordance with my plan, such section showing the gun with the breech-slide as moved down, preparatory to the operation of loading the piece, a percussion-cap being exhibited as forced upon the nipple. Fig. 2 is a longitudinal section, showing the gun with the breech-slider in proper place, and with the cartridge in the barrel and ready for being discharged. Fig. 3 is an end view of the adjustable breech, and Fig. 4 a side view of the same.

In such drawings, A denotes the barrel of the gun, with its breech end open. B is the breech-slide, constructed of a block of metal or suitable material, and having an adjustable breech, B', separate from it and screwed into it, as seen in said figures. The said adjustable breech B' is formed not only with a circular head, D, to cover the end of the barrel, but with a male screw, b, to enter a correspond-

ing female screw, d, cut in the breech-slide, and into which it is to be screwed. In rear of the screw, and between it and the nipple, is a square or other properly-shaped polygonal shoulder, f, such being for the purpose of enabling a person with a wrench or other suitable instrument to revolve the breech B', so as to cause the screw to make it approach toward or recede from the end of the barrel. The said breech also has in rear of the said shoulder f a nipple, E, for receiving the percussion-cap, the said nipple E, the shoulder f, the male screw b, and the head D being made of one piece of metal and arranged in the movable adjustable breech, as shown in the drawings.

The priming apparatus, as seen at P in the figures, is constructed with a tube, h, having a bore a very little larger in diameter than the diameter of the percussion-cap. This tube extends through the stock S, and is so arranged with respect to the nipple of the adjustable breech that when the latter is drawn down preparatory to loading the barrel the series of caps p p p, with which the tube may be supplied, as shown in the drawings, shall be in line with said nipple, a block of metal, y, fixed to the rear of the breech-slider, serving to keep the said caps in place within the tube and against the pressure of a spring, g, until the nipple shall be brought in line with them. When this is taking place one of the caps will be forced upon the nipple by the helical spring g, which is inserted in the tube and in rear of the caps. The cartridge having been inserted into the end of the barrel, and the breech shoved up into place, the gun will be ready for a discharge.

The advantage of my arrangement over the ordinary breech-slider of the Sharps rifle or carbine is, that by the separate adjustable breech applied to the breech-slider, as described, I am enabled to advance or retract the breech with respect to the end of the barrel, and by this means, should the front face of the breech or the rear end of the barrel become worn or corroded, I can readily adjust the two to a close fit. By having the touch-hole directly in the center of the barrel, I can employ a pricker or needle to puncture the cartridge, if desirable, which cannot be done conveniently in case the nipple is applied to

the top of the breech-slide, or if the touch-hole is not in a straight line with the axis of the bore of the nipple. By combining the nipple in manner as represented with the breech, the head of the breech, by being larger in diameter than the screw, prevents the nipple from being blown out of place, as is frequently the case where the nipple is merely screwed into the barrel or breech-slider, and has no device like the breech-head to hold it in place against the force of the explosion of the charge. Furthermore, the arrangement of the nipple on the breech renders it very convenient for the application of a primer to it, as described.

When a breech-slide is used in connection with the barrel of a fire-arm, I claim—

1. A movable breech separate from the breech-slide, and arranged and applied there-

in so as to be adjustable to the rear end of the barrel, substantially in manner and for the purpose as described.

2. The arrangement of the priming-nipple and the touch-hole thereof with respect to the movable adjustable breech applied to the breech-slide, as specified, or with respect to the same and a primer arranged in the stock, substantially as explained, such arrangement being productive of advantages, as hereinbefore enumerated.

In testimony whereof I have hereunto set my signature.

FREDERICK CURTIS.

Witnesses:

LAURENCE LYONS,
F. P. HALE, Jr.