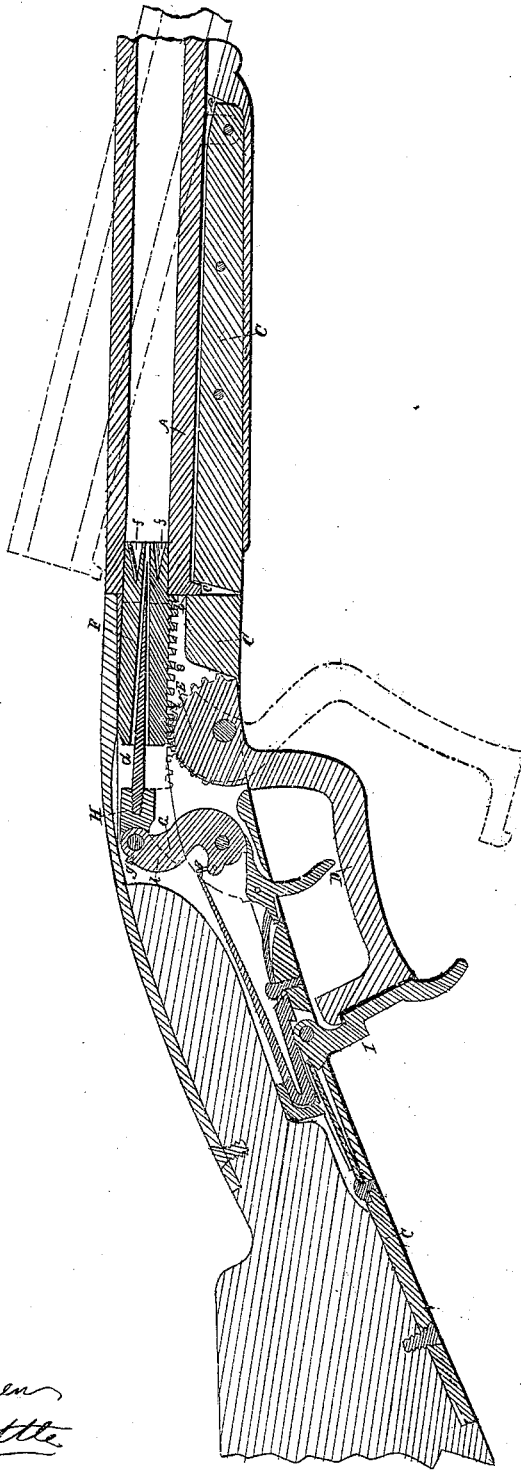


H. SCHRODER.  
Breech-Loading Fire-Arm.

No { 1,649. }  
      { 32,653. }

Patented June 25, 1861.



Witnesses.

*Henry Immelen*  
*W. Settle*

inventor.

*Herman Schroder*

# UNITED STATES PATENT OFFICE.

HERMAN SCHRÖDER, OF NEW YORK, N. Y.

## IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 32,653, dated June 25, 1861.

*To all whom it may concern:*

Be it known that I, HERMAN SCHRÖDER, of the city, county, and State of New York, 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 thereof, reference being had to the accompanying drawing, which represents a sectional view of the arm, and to the letters of reference marked thereon.

The nature of my invention consists, mainly, in providing the arm with a movable breech-pin, which, by means of a lever-guard, not only cocks the lock, but at the same time releases the breech of the barrel, so that it may be thrown upward to receive the charge, and in this respect it is designed as an improvement upon the breech-loading fire-arm patented to Herman Schröder, Lewis Salewski, and William Schmidt on the 23d of December, 1856, the improvement being manifested in a simplification of the mechanism and an increased facility for inserting the cartridge. I have, however, other minor improvements, which will be specified as they are described.

To enable others skilled in the art to which this invention is most nearly allied to make and use my invention, I shall now proceed to describe the construction and operation of this my improved implement.

The barrel A is hinged to the metallic strap C (to which also the lock and lever-guard are permanently attached) at *a*. F is the movable breech-pin, formed with a rack, *e*, on its under side, whose teeth engage with those of the segmental pinion E, formed on the anterior end of the lever-guard D. The movable breech-pin has also sunk in its face an annular chamber, *f*, of a V form in its cross-section, as represented, for the reception of the charge, which is of the character of a ball-cartridge with the fulminate next the ball or in front of the charge. The needle *d* passes through the movable breech-pin as a guide, and it is held in its stock H, which is jointed to the dog G at *g*, where the said dog is bifurcated, each fork being provided with a shoulder, as represented at *h*, which strikes upon the upper surface of the metallic strap C as the lock is sprung; or, instead of the dog G

being bifurcated and formed with shoulders to arrest the forward motion of the breech-pin, the stock H may have this construction, when of course the same result would follow. At *b* is a wedge-shaped projection, which fits into a mortise in the strap C of corresponding shape.

From this construction results the following operation: Suppose the several parts to be in the position represented in red lines. The breech of the barrel is thrown up to receive the charge, the movable breech-pin is withdrawn by means of the lever-guard D, and the lock is thus cocked, the rear end of the breech-pin bearing against the shoulder of the needle-stock. The cartridge having been inserted, the breech of the barrel is depressed, when the wedge-shaped projection *b*, striking into its mortise *c*, forces the breech of the barrel into close contact with the recoil-plates, and thus prevents the escape of the gases. The lever-guard D is then brought up into contact with its detent I, leaving the lock cocked, which operation forces forward the movable breech-pin and the cartridge, the explosive part of which is received into the annular chamber *f*. In this position the barrel is firmly locked and can be neither thrown upward nor forward. On springing the lock to effect the discharge, the forward motion of the needle is arrested by means of the shoulder *h* of the dog G, or the shoulders formed on the bifurcated stock H, as the case may be, striking on the upper surface of the strap C. Were this not the case, the shoulder of the stock H would strike the movable breech-pin, and tend to give it also a forward motion. The discharge taking place, the gases expand the thin edge of the annular chamber *f*, and thus effectually pack the joint between the bore of the barrel and the movable breech-pin. It should be observed that the mortise *c* not only serves the purpose of securing a tight joint between the barrel and the breech, but it also admits of the passing off of such foreign matter as would otherwise lodge between the barrel and the strap C.

Having thus described my invention in breech-loading fire-arms, what I claim therein as new, and desire to secure by Letters Patent of the United States, is—

1. The movable breech-pin F, when operat-

ing as described, to cock the lock and lock the barrel.

2. The movable breech-pin operating as described, in combination with the expansive annular charge-chamber *f*, as and for the purpose specified.

3. The shoulders *h* on the dog *G*, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand this 9th day of May, A. D. 1861.

HERMAN SCHRÖDER.

Witnesses:

HENRY IMMEN,

A. B. LITTLE.