

(No Model.)

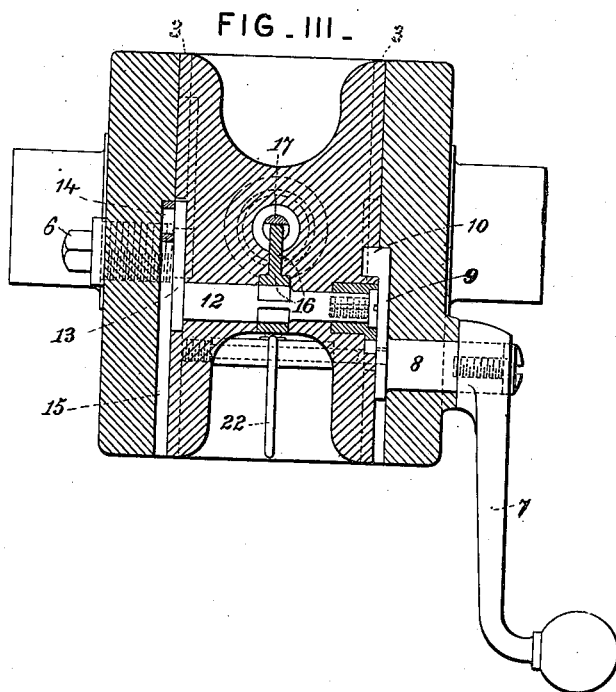
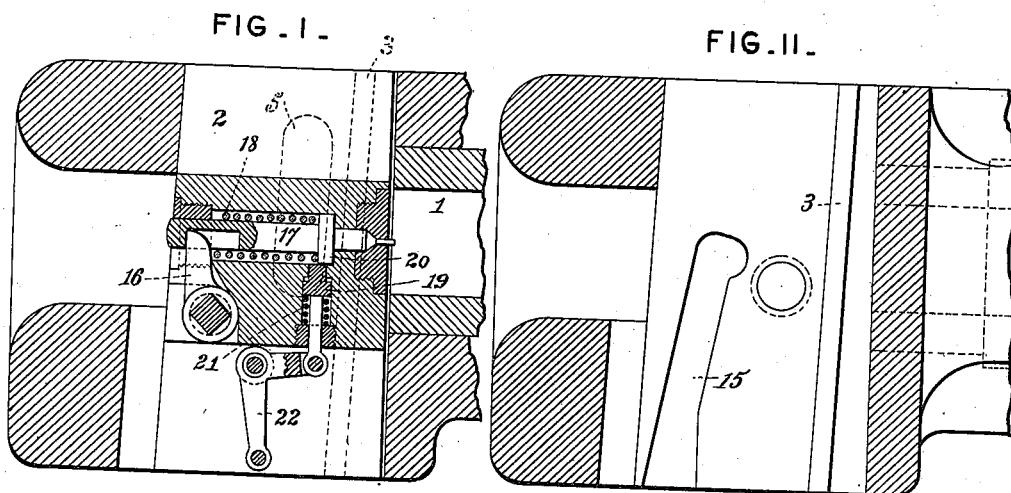
2 Sheets—Sheet 1.

C. RÖSTEL.

BREECH LOADING ORDNANCE.

No. 383,372.

Patented May 22, 1888.



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Geo. T. Smallwood,  
E. Ashley.

Inventor:  
Carl Röstel.  
By Knight Bros  
attys.

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FIG. IV.

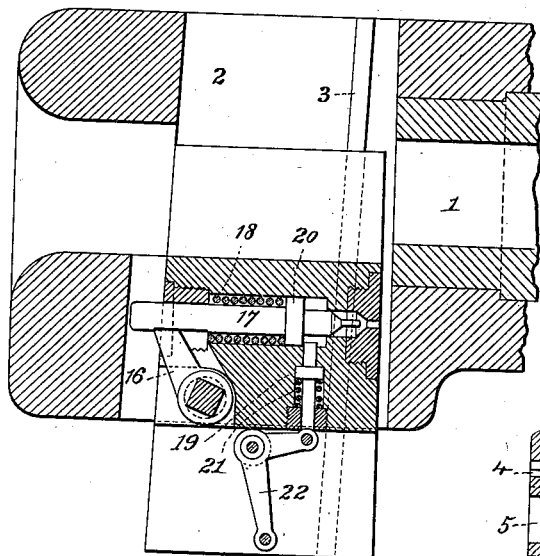


FIG. VII.

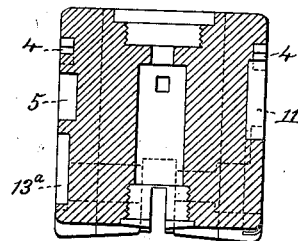


FIG. V.

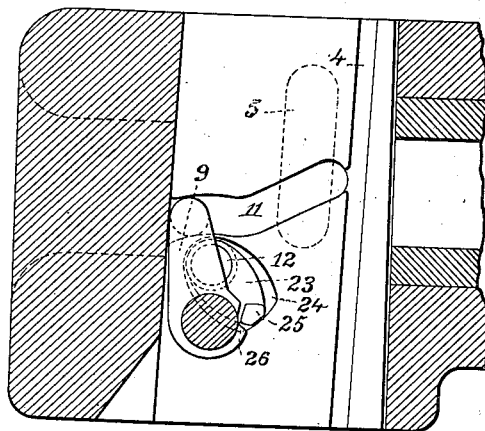
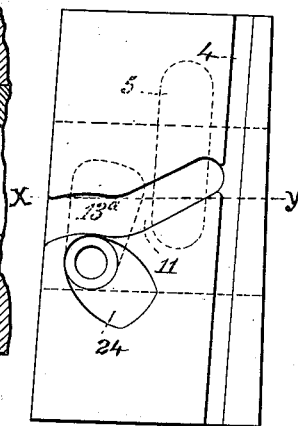


FIG. VI.



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# UNITED STATES PATENT OFFICE.

CARL RÖSTEL, OF MAGDEBURG-BUCKAU, PRUSSIA, GERMANY, ASSIGNOR  
TO GRUSONWERK, OF SAME PLACE.

## BREECH-LOADING ORDNANCE.

SPECIFICATION forming part of Letters Patent No. 383,372, dated May 22, 1888.

Application filed December 12, 1887. Serial No. 257,673. (No model.) Patented in Germany January 13, 1887, No. 41,001; in Austria-Hungary June 10, 1887, 37/XXI, 1,120/1,100; in Belgium June 28, 1887, No. 77,993, and in Italy September 30, 1887, XXI/43, 21,980/360.

### *To all whom it may concern:*

Be it known that I, CARL RÖSTEL, engineer, a subject of the Emperor of Germany, residing at Magdeburg-Buckau, Prussia, have invented certain new and useful Improvements in Breech-Loading Fire-Arms, of which the following is a specification, the same having been patented to me in Germany, No. 41,001, dated January 13, 1887; in Austria-Hungary, Vol. 37, XXI, page 1,120/1,100, dated June 10, 1887; in Belgium, No. 77,993, dated June 28, 1887, and in Italy, XXI/43, No. 21,980/360, dated September 30, 1887.

My invention relates to the charging and cocking mechanism of breech-loading fire-arms; and it consists of certain details of construction, hereinafter fully described, and pointed out in the claims.

In the drawings which accompany and form part of this specification, Figure I is an axial sectional view of the breech of a gun having my improvements applied thereto. Fig. II is a sectional view with the breech-block removed. Fig. III is a sectional view in a plane at right angles to that of Fig. I. Fig. IV is a view similar to Fig. I, the breech-block, however, being here shown down and the firing-pin being in cocked position. Fig. V is a sectional view with breech-block in elevation. Fig. VI is a side elevation of the breech-block, the operating mechanism being removed. Fig. VII is an axial section of the same on the line  $x\ y$ , Fig. VI.

1 represents the barrel of the gun, and 2 the breech-block, guided in the breech by means of tongues 3 and grooves 4, slightly slanted with reference to the axis of the gun-barrel, so that as it descends the breech-block will slightly recede from and as it ascends will approach close to the rear end of the barrel.

5 is a groove on the breech-block with which a screw-stud, 6, on the breech engages to limit the play of the breech-block. The latter is raised and lowered by the crank 7, Fig. III, whose axis 8 is journaled in the breech of the gun, and has on its inner end an arm, 9, whose stud or portion 10 is engaged by a groove or guide, 11, on the breech of the gun. Journaled transversely in the breech-block is a

shaft, 12, having at one end a crank, 13, (moving in chamber 13<sup>a</sup> of the breech-block,) and having a stud or portion, 14, engaged by a groove or guide, 15, on the breech.

Arranged centrally on shaft 12 is an arm, 16, which bears in a slot or against a shoulder on the firing-pin 17. (See Fig. I.) The firing-pin has the customary spring, 18, for projecting it, and has, further, a sear, 19, for retaining it in cocked position by bearing behind shoulder 20. The sear 19 has a spring, 21, and trigger 22 for operating it.

It will now be observed that with the groove or guide 15 formed as shown in Fig. II the crank 13 is forced backward as the breech-block descends when operated by crank 7. The shaft 12 is thereby rotated partially, and the arm 16 thereof draws back the firing-pin 17 sufficiently to allow it to be arrested by sear 19 and held in the position shown in Fig. IV, when the shaft 12, crank 13, and arm 16 are returned to normal position by raising the breech-block.

Ordinarily with center-fire cartridges the parts are so arranged that after the firing-pin is projected its point protrudes slightly through the breech-block into the rear end of the barrel, so that the breech-block cannot be removed until the firing-pin is shifted. To accomplish this I arrange upon the shaft 12, on the end opposite to crank 13, a short arm, 23, which has preferably an elliptical form, as shown in Fig. V, and is adapted to move in a chamber, 24, Fig. VI, cut out of the breech-block. A stud, 25, on the arm 23 rests, when the parts are in the position shown in Fig. V, in a notch, 26, on arm 9; but as soon as the arm 9 is moved in the operation of lowering the breech-block the stud 25 will be forced backward, shifting the arm 23 and slightly rotating the shaft 12, so as to free the end of the firing-pin from the barrel. To prevent movement of the breech-block while this is going on, the groove 11 therein which receives the stud 10 of the arm 9 is made concentric with the axis 8 for a short distance.

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

1. The combination, with a gun-breech hav-

ing a groove or guide formed therein, of a breech-block having a firing-pin, a shaft mounted in the breech-block and carrying an arm engaging the firing-pin, and a crank on the shaft working in and operated by the said groove as the block is moved, as set forth.

2. The combination, with a breech-block having a firing-pin and a shaft for operating the firing-pin, of a crank for moving the breech-block connected thereto, so as to allow lost motion of said block on first moving the crank, and an arm on the firing-pin shaft engaging said crank and moved thereby, so that the pin will be started back before the block is lowered, as set forth.

3. The combination, with a breech-block having a firing-pin and an arm for operating the firing-pin, of a crank on the breech, groove formed in the breech-block, and a projection on the crank for engaging the groove, the said firing-pin arm engaging the crank and a portion of the groove being made concentric with the crank, whereby upon turning the crank the firing-pin is withdrawn before the block is moved, as described.

CARL RÖSTEL.

Witnesses:

W. WENGHÖFER,  
JUL. NIESCHALK.