

(No Model.)

2 Sheets—Sheet 1.

P. MAUSER.
MAGAZINE FOR BREECH LOADING FIREARMS.

No. 527,869.

Patented Oct. 23, 1894.

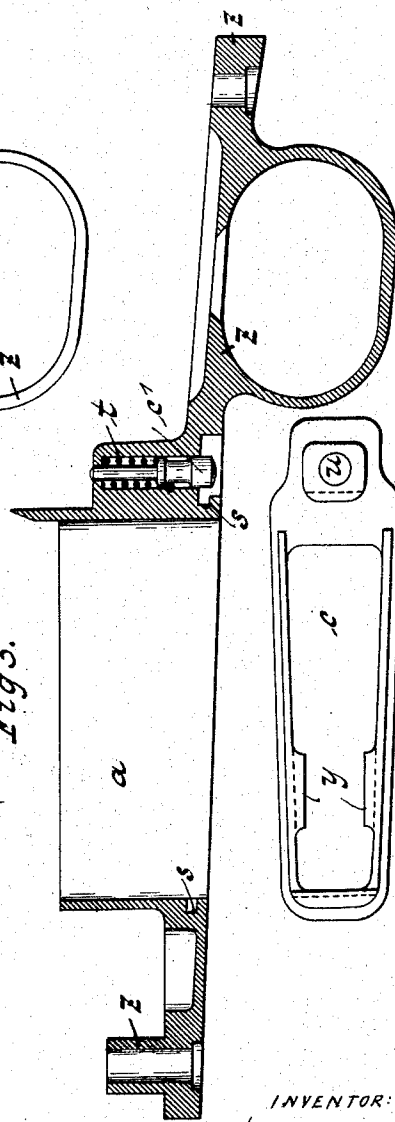
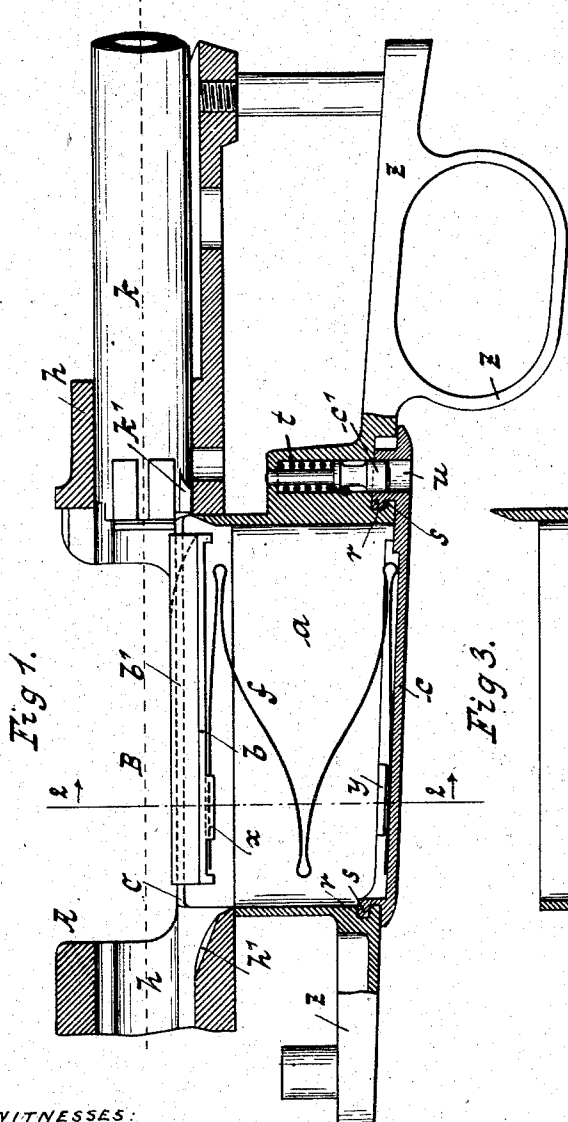
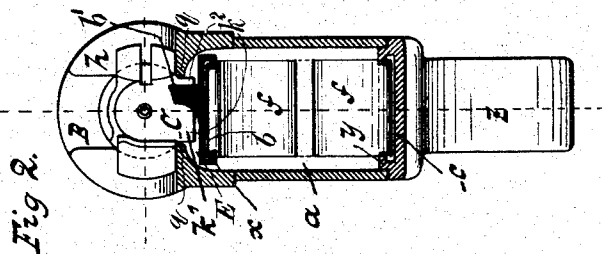


Fig 4.

WITNESSES:

Fred White
Thos. F. Wallace

INVENTOR:

Paul Mauser,
By his Attorneys,
Arthur O. Oranger & Co.

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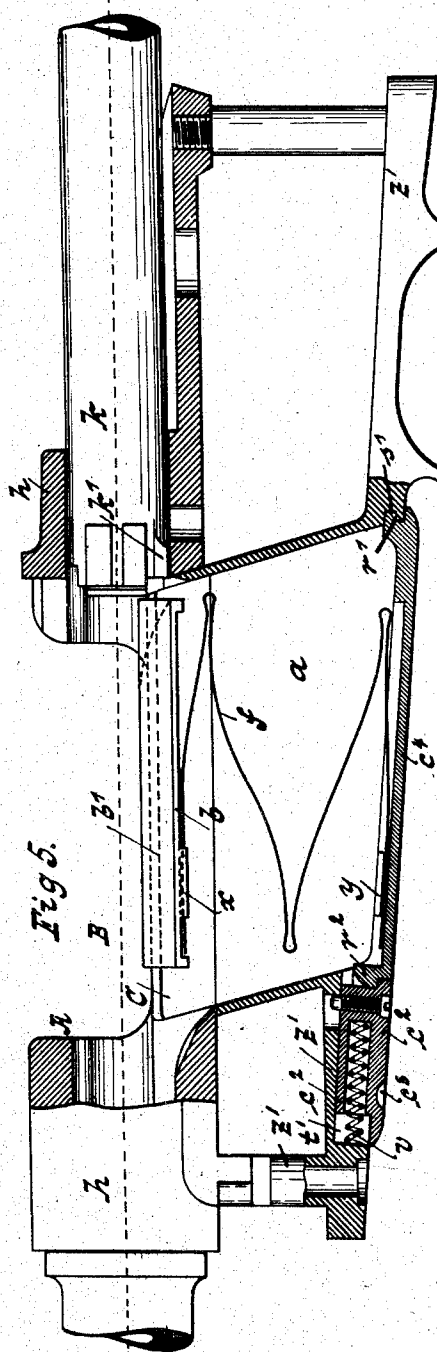


Fig. 5.

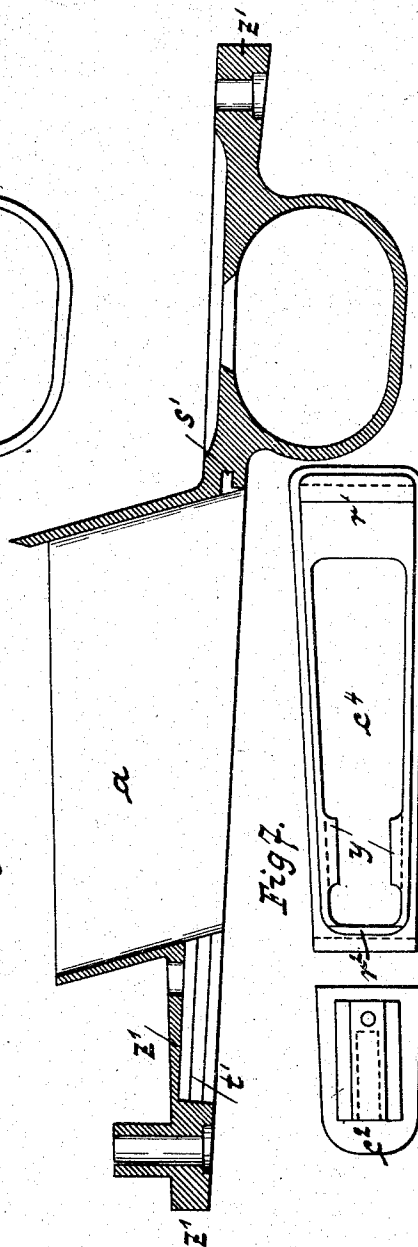


Fig. 6.

Fig. 7.

WITNESSES:

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UNITED STATES PATENT OFFICE.

PAUL MAUSER, OF OBERNDORF, GERMANY.

MAGAZINE FOR BREECH-LOADING FIREARMS.

SPECIFICATION forming part of Letters Patent No. 527,869, dated October 23, 1894.

Application filed September 15, 1893. Serial No. 485,603. (No model.) Patented in Germany July 8, 1893, No. 74,163; in Belgium July 31, 1893, No. 105,890; in France August 1, 1893, No. 231,904; in England August 12, 1893, No. 15,390; in Italy August 12, 1893, No. 34,642/84; in Switzerland August 15, 1893, No. 7,276; in Spain September 30, 1893, No. 14,582; and in Austria-Hungary January 23, 1894, No. 41,426 and No. 70,284.

To all whom it may concern:

Be it known that I, PAUL MAUSER, a subject of the German Emperor, and a resident of Oberndorf am Neckar, in the Kingdom of Würtemberg, German Empire, have invented certain new and useful Improvements in Fixed Magazines for Breech-Loading Bolt-Guns, of which the following is a specification.

This invention is the subject matter of Letters Patent in Germany, No. 74,163, dated July 8, 1893; in Great Britain, No. 15,390, dated August 12, 1893; in France, No. 231,904, dated August 1, 1893; in Belgium, No. 105,890, dated July 31, 1893; in Austria-Hungary, No. 41,426 and No. 70,284, dated January 23, 1894; in Italy, No. 34,642/84, dated August 12, 1893; in Spain, No. 14,582, dated September 30, 1893; and in Switzerland, No. 7,276, dated August 15, 1893.

My invention relates to those breech-loading bolt-guns which are provided, under the cartridge-rest, with a cartridge magazine which is made in one piece with the trigger-guard and permanently fixed to the gun, such as shown in my Letters Patent No. 490,029, dated January 17, 1893, and its object is to simplify the construction of the magazine and the parts connected to it, and to obtain certain other advantages derived from the new construction.

To this end in carrying out my present invention I provide certain improvements which will be hereinafter fully set forth.

The invention is applicable to various styles of breech-loading bolt-guns, but I will illustrate and describe it for an example as applied to that particular type of gun which is known as the "Mauser" gun.

In the accompanying drawings, Figure 1 is a fragmentary side elevation of the lock portion of a Mauser gun in the opened state and partly in vertical axial section. The magazine shown is intended only for cartridges having no projecting bottom-rim. Fig. 2 is a vertical cross-section of the gun, cut on the line 2—2 of Fig. 1, and showing the magazine empty. Fig. 3 is an axial section of the trigger-guard removed. Fig. 4 is a plan view of the bottom-plate of the magazine removed

from the latter. Fig. 5 is a fragmentary longitudinal section, partly in elevation, of the lock portion of a gun, showing the shape of the magazine when intended for cartridges having projecting bottom-rims, and showing a modified construction of the locking device of the bottom-plate differing from that shown in Fig. 1. Fig. 6 is an axial section of the trigger-guard shown in Fig. 5 removed. Fig. 7 is a plan of a bottom plate and its bolt of the construction shown in Fig. 5.

Referring to the drawings, let *h* indicate the receiver; *A*, the head thereof; *B*, the opening thereof; *C*, the magazine opening thereof; *k*, the bolt; *k'*, the head thereof; *a*, the magazine; *b*, the cartridge-carrying plate thereof; *c*, the bottom plate thereof; *f*, the spring thereof, and *z* the trigger-guard.

According to my invention the magazine *a* is made in one piece with the trigger-guard *z*, and from top to bottom is of the same inside width, without lateral springs, ribs, projections or indentations. The front portion is narrower than the rear portion, but throughout it is wider than a single cartridge, so as to give room for a plurality of rows of cartridges side by side but of different elevation, as heretofore. The magazine is, as is usually done with the trigger-guard alone, screwed to the receiver case *h*, so as to fit snugly to its under side. The inner space of the magazine goes into the opening *C* of the under side of the receiver *h*, which opening narrows from its front toward its rear in curved lines from both sides in such manner that only one cartridge at a time can pass into the cartridge-rest as heretofore.

The side walls of the magazine opening *C* are broadest at their forward ends to permit the rising of the cartridge between them as it is forced forward, and are drawn inwardly toward their rear ends forming overhanging shoulders *q q* which engage and retain the uppermost cartridge. These shoulders are disposed relatively to the cartridges to so embrace the uppermost thereof that it cannot rise past the shoulder engaging it and through the opening *C*, until it has been pushed forward to the wide front part of the opening.

The magazine *a* is closed at its lower side by a separate removable plate or bottom, as represented in the drawings and described hereinafter.

5 For causing the cartridges to ascend they are arranged upon a carrier or plate *b* corresponding to the interior space of the magazine. The said carrier *b* is under the action of an underlying spring *f* made zigzag-shaped
10 of one piece of suitably bent steel band. As usual the carrier *b* is provided on its upper face out of its middle with an elevation, or a longitudinal rib, *b'*, which supports the last but one of the lower cartridges *D*, and keeps
15 the last one in its correct position. The uppermost cartridge is situated in the arched and suitably shaped space *E* below the opening *C* in the under side of the receiver *h*. At one time the uppermost cartridge is at the
20 left side of this space, and when this one is removed the following cartridge becomes the uppermost one, which is then at the right hand side of this space. The uppermost cartridge is the only one engaged by the bolt.
25 When the cartridge is shoved forward by the bolt *k* the point of its projectile is forced against the peculiarly hollowed out and rounded lower portion *h'* of the boring of the head *A* of the receiver *h*, Fig. 1, and
30 it is caused to ascend thereby through the case opening *B*, and comes successively more and more into the axis of the barrel until it attains lastly the normal position. The head *h'* of the bolt *k* is furnished on its under
35 side with side-projections *k²* to enable the bolt-head *h'* to catch unfailingly the cartridge lying alternately to the right or the left in front of it. The said projections *k²* work during the longitudinal movement of the
40 bolt *k* in corresponding grooves of the case *h*, and traverse the magazine opening *C*.

In case the rear end of the rib *b'* of the carrier *b* is made blunt, as shown in Fig. 1 in full lines, the bolt *k* cannot be pushed forward when the last cartridge has been fired
45 and the bolt drawn back. Thus the rib serves as a stop for the bolt when the magazine is empty as formerly. This will be an admonition that the magazine is empty and should
50 be refilled. If that is not desirable, the rib *b'* may be rounded at the end, as shown in Fig. 1 in dotted lines, to permit free passage of the bolt.

In the drawing the spring *f* is shown as secured with its ends passed under suitable
55 projections *x* on the carrier *b*, and like projections *y* on the bottom-plate *c*; but it may, if desired, be fastened to these parts in any other convenient way, or be interposed loosely
60 but the construction shown is considered the best one.

The magazine *a* is shut below by a removable bottom *c*. Figs. 1 to 4 show the construction arranged for removing it without any
55 tool other than by means of the projectile of a cartridge. The bottom-plate *c* is furnished on the front and on the rear end with hook-

shaped lugs *r r* entering in corresponding
grooves *s s* in the body of the trigger-guard
70 *z* when the bottom *c* is pushed forward. Thereafter a vertical snap-bolt *c'* situated in a boring *t* of the trigger-guard *z* and acted upon by a spring enters in a corresponding
75 hole *u* in the rear part of the bottom *c* and secures the latter in its position. For removing the bottom *c* the bolt *c'* is pressed upward by the point of the projectile of a cartridge, and simultaneously the bottom *c* is
80 drawn backwards, for which purpose sufficient space is provided at its rear in the trigger-guard, until the hook-shaped lugs *r* leave their
85 grooves *s*, whereupon the bottom may be removed.

The last described construction can not be used for inclined magazines for cartridges
85 with projecting rims, as there is no room for the snap-bolt *c'*. For such magazines the arrangement shown in Figs. 5, 6 and 7 is considered a superior one, which may be also
90 used for straight magazines instead of that above described. The bottom, here lettered *c⁴*, fits with a projection *r'* on its rear end in a recess *s'* of the trigger-guard, here lettered
95 *z'*, and with a chamfered hook *r²* on its front end, over a plate *c²* sliding in and guided by a groove *t'* on the under side of the trigger-guard *z'*, which plate is actuated by a spring
100 *v*. The plate *c²* is forced forward by the hook *r²* as the bottom *c* is pressed home, whereupon the plate *c²* snaps back under the hook and holds the bottom *c⁴* in its shut position. For
105 removing the bottom *c⁴* the plate *c²* is pushed forward by the point of the projectile of a cartridge inserted in an indentation *c³* on the under side of the plate *c²* until the hook is released, when the bottom *c* may be taken off.

After having thus described this invention as applied to the "Mauser gun" any expert
110 in fire-arms will be in the position to apply the invention to bolt-guns of other styles.

It will be seen that this invention is an improved magazine for breech-loading bolt-guns
115 which can be variously availed of, and it will be understood that the invention is not limited to the precise details of construction and arrangement set forth and shown, as these may be modified in such respects as circumstances or the judgment of those skilled in the art may dictate, without departing from the essential features of the invention.
120

What I claim is, in breech-loading bolt-guns, the following defined novel features, substantially as hereinbefore specified, namely—

1. In a breech-loading bolt gun, the receiver, the magazine, and bolt, in combination with a
125 trigger-guard consisting of a single integral piece of metal having the fixed cartridge magazine *a* in its forward part, said guard having upright walls surrounding said magazine and seating at top against the under side
130 of said receiver, said guard having grooves *s* at bottom and the bottom plate for said magazine removably connected thereto, and having lugs *r* entering said grooves and retaining

said plate in position on said magazine, and a snap catch carried by said guard and engaging said plate for preventing separation of the latter.

5 2. In a breech-loading bolt gun, the receiver and bolt, in combination with a magazine *a* and a carrier plate *b* thereon having a rib *b'* on its upper face, and projections *x* on its
10 under face, of a trigger-guard having said magazine formed in its forward part, a bottom plate *c* closing said magazine, and having
15 projections *y*, and a leaf spring *f* in said magazine connected to said bottom plate by said projections *y* and to said carrier plate by
said projections *x* substantially as set forth.

3. In a breech-loading bolt gun, the receiver

and bolt, in combination with a magazine, a carrier plate therein having projections *x* on its under face, a removable bottom plate closing said magazine and having projections *y* 20 on its upper face, and a leaf spring *f* in said magazine connected to said top plate by said projections *x* and to said bottom plate by said projection *y*, substantially as set forth.

In witness whereof I have hereunto signed 25 my name in the presence of two subscribing witnesses.

PAUL MAUSER.

Witnesses:

EDWIN F. STEIN,
S. B. STIFTER.