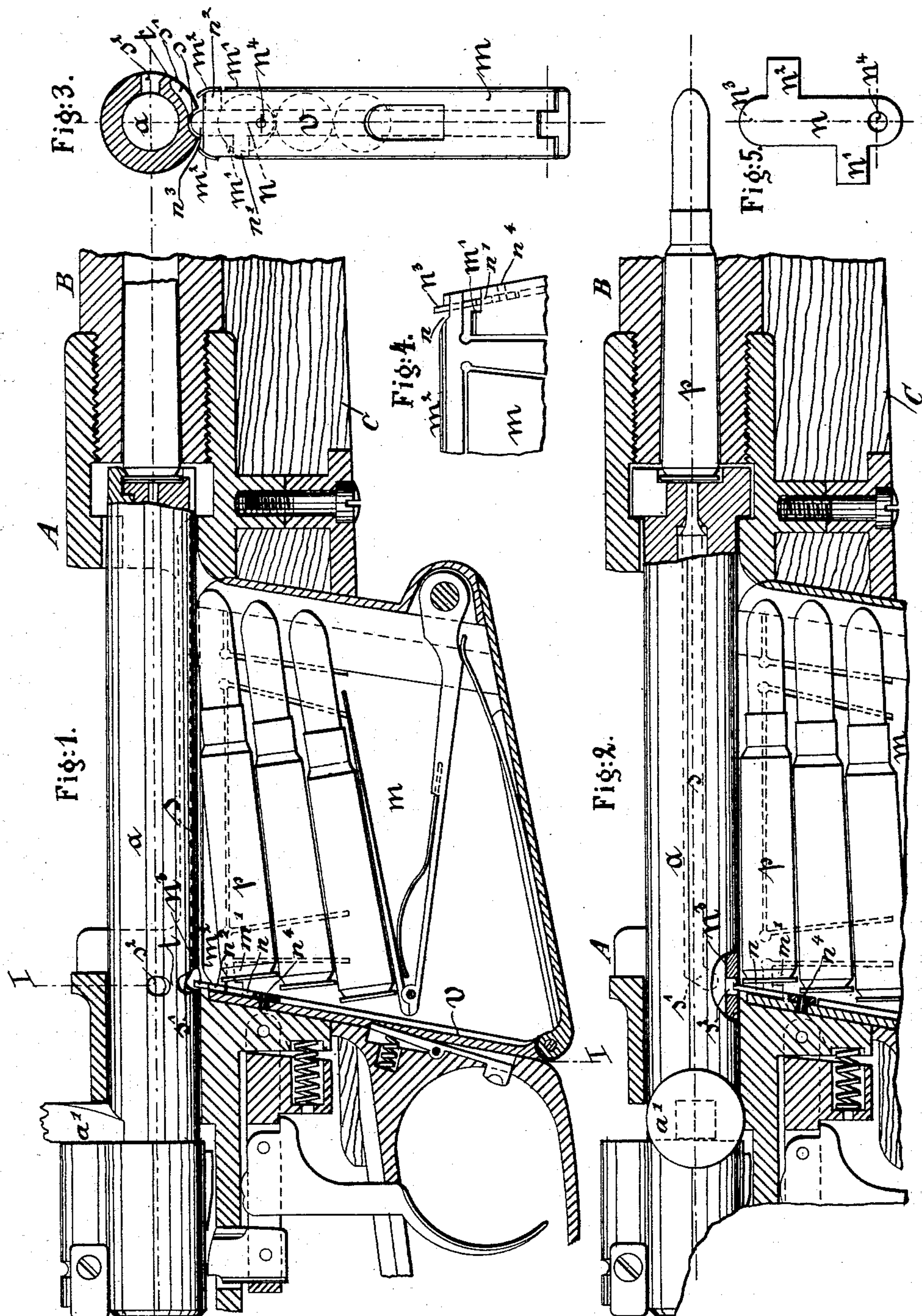


(No Model.)

P. MAUSER.
CARTRIDGE STOP FOR MAGAZINE GUNS.

No. 455,514.

Patented July 7, 1891.



WITNESSES
John Becker
Fred White

INVENTOR:
Paul Mauser,
By his Attorneys.
Arthur C. Brasen & Co.,

UNITED STATES PATENT OFFICE.

PAUL MAUSER, OF OBERNDORF-ON-THE-NECKAR, GERMANY, ASSIGNOR TO
THE WAFFENFABRIK MAUSER, OF SAME PLACE.

CARTRIDGE-STOP FOR MAGAZINE-GUNS.

SPECIFICATION forming part of Letters Patent No. 455,514, dated July 7, 1891.

Application filed November 8, 1890. Serial No. 370,830. (No model.)

To all whom it may concern:

Be it known that I, PAUL MAUSER, manufacturer, a subject of the King of Württemberg and German Emperor, residing at Oberndorf-on-the-Neckar, in the Kingdom of Württemberg, German Empire, have invented a new and useful Improvement in Loading Devices for Breech-Loading Bolt-Guns, of which the following is a specification.

The cylinder-bolt of breech-loading repeating-guns as constructed at present does not pull back the cartridge in case the latter was not fully brought home within the barrel and the bolt pulled back prior to fully closing the breech. In such cases a new cartridge coming from the magazine enters in front of the retracted bolt and is pushed either under or against the first cartridge sticking more or less deeply in the barrel, thereby interfering with the proper loading and discharging of the gun. To obviate these disadvantages and obstacles to loading by very simple mechanical means and without altering essential parts of the gun and in such a way that the improvement may be applied without inventive action to guns of all patterns is the object of the present invention.

In the accompanying drawings, representing a so-called "Mauser" gun with a removable cartridge-magazine attached beneath the breech, wherein the preferred form of my invention is illustrated, Figure 1 is a fragmentary vertical axial section of the breech portion of the gun in the position occupied when the bolt has pushed a cartridge into the barrel, but before the breech has been fully closed and before the bolt is turned down to the right to lock it. Fig. 2 is a similar view, but showing the parts in the fully-closed position, the bolt being turned down to the right ready for firing. Fig. 3 is a cross-section of the bolt cut on the line 1 1 of Fig. 1, showing the magazine in rear elevation. Fig. 4 is a fragmentary side elevation of the upper back portion of the magazine, and Fig. 5 is an enlarged rear view of the tumbler removed.

Referring to the drawings, in which similar letters refer to similar parts throughout the several figures, I will now describe the preferred form of my invention as applied to a Mauser gun.

Let A represent the breech-case or receiver of a gun; B, the barrel; C, the stock; *a*, the bolt, and *m* the magazine.

The two side sheets of the magazine *m* are constructed with their top edges *m*² bent inwardly and made elastic by suitable cuts in the sides, as shown in dotted lines in Figs. 1 and 2, as has been heretofore usually done, so that the uppermost cartridge *p* in the magazine is retained therein by the edges *m*², but presents itself automatically to the bolt *a* when the latter is fully drawn back, and will be removed from the magazine and pushed into the barrel when the bolt *a* is brought forward and before it has been brought into its fully-closed position. The uppermost cartridge in the magazine *m* is normally kept down in such a position that it cannot rise high enough to present its butt to the bolt *a*. To accomplish this, I provide a detent consisting, preferably, of the top edge *m*' of the back portion of the left-side sheet of the magazine *m* below the spring *m*², which edge *m*' is partly bent inwardly, so that this projecting edge *m*' keeps back the back end of the uppermost cartridge and prevents it from rising into the path of the bolt *a* so long as the edge *m*' is not forced aside to free the cartridge. This position of the parts is represented in Fig. 1. To release the cartridge, provision is made for forcing aside the edge *m*'. This is preferably accomplished by the tumbler *n*, (shown removed in Fig. 5,) mounted to swing around a stud or rivet *n*⁴ in the rear wall *v* of the magazine *m*, and having a rounded upper end *n*³ protruding into the path of the bolt *a*, to provide for which the latter has a groove *s* correspondingly, so that it can be pushed freely lengthwise to and fro without touching the part *n*³. The tumbler *n* has two side projections *n*' *n*², fitting between the two side sheets of the magazine in such a way that *n*' rests against the detent *m*' of the left-hand side and *n*² against the part *m*² or *m*' of the right-hand side. It will be seen that if the tumbler *n* is moved to the left the left edge *m*' of the magazine is forced aside by the projection *n*' of the tumbler, so that at this moment the cartridge *p* will be released from the edge *m*' and will rise into its normal position against the bottom of the

bolt. This position is represented in Fig. 2. As soon as the tumbler n is allowed to return to its normal position the edge m' springs back also and will be ready to retain the next cartridge in its depressed position after the uppermost cartridge is removed by the advancing bolt a and pushed into the barrel B . The bolt a , having pushed the cartridge into the barrel, is now turned to the right by means of its handle a' into its closed position. During this turning motion the top end n^3 of the tumbler n enters from the longitudinal groove s into a short cross-groove s' in the bolt a until it is struck by an interruption or tooth t of this cross-groove s' , which tooth t , as the bolt turns moves the top end n^3 of the tumbler to the left again, causing the various proceedings before described as the tumbler is tilted on its pivot, thus permitting the uppermost cartridge in the magazine to be released from under the edge m' and to rise to the position shown in Fig. 2. Before the bolt a has finished turning the tooth t has passed the top end n^3 of the tumbler, which now returns to its normal position by reason of its end n^3 entering an indentation or hole s^2 on the bolt a when the latter reaches its closed position, which indentation s' is practically a continuation of the cross-groove s^2 . After the discharge of the gun and in turning the bolt a to the left for opening the breech the tooth t moves the tumbler n to the right, which, having passed the tooth t , returns into its normal position. When the bolt a has finished its back-stroke, the uppermost cartridge will rise and present itself to the returning action of the bolt a . Whenever the bolt a is pulled back before it has been fully closed, the next cartridge is prevented from presenting itself to the action of the bolt a , since until the tumbler is tilted by turning the bolt to the closed position the detent m' , restraining the cartridge, is not displaced; but if the bolt is once normally closed and then drawn back the uppermost cartridge of the magazine will always appear in its normal position, its detent having been displaced by the closing operation.

The application of my invention to the bolt-guns at present in use does not require an essential alteration of them. The grooves s s' s^2 can be milled in the bolt a without other changes of the lock mechanism, and the mounting of the tumbler n , as well as the small alteration of the side sheets of the magazine m , will in no way interfere with the present construction.

It will be understood that instead of using a portion of the side sheet of the magazine m for the spring-edge m' a separate spring properly shaped and fastened to the frame of the magazine m may be employed; also, that my

invention may be variously modified and may be applied to various styles of guns without departing from its essential features, and that I do not limit myself to the construction herein set forth, which is the preferred form of my invention.

After having fully described and ascertained the nature of my invention and in what manner the same is to be performed, what I claim as new, and desire to secure by Letters Patent, is, in bolt-guns, the following-defined novel features and combinations, substantially as hereinbefore set forth, namely:

1. In a breech-loading bolt-gun, the combination, with the bolt and the cartridge-magazine opening below the bolt, of a detent projecting into the path of the rising cartridges and constructed to prevent the cartridge within the magazine from rising into position for engagement with the bolt, and means constructed to act on said detent and to engage with said bolt and to be operated by the movement of the bolt to the closed position, and thereby to automatically disengage said detent.

2. In a breech-loading bolt-gun, the combination, with the bolt and the cartridge-magazine, of a detent located adjacent to the magazine and constructed to project into the path of the rising cartridges and to prevent the top cartridge within the magazine from rising into position for engagement with the bolt, and means for automatically disengaging said detent, consisting of a tumbler engaging said bolt and constructed to be operated by the turning movement of this latter.

3. In a breech-loading bolt-gun, the bolt a , having the grooves s s' s^2 and the tooth t , and the magazine m , having the projecting spring m' far enough below its top to hold the cartridge from engagement with the bolt, in combination with means for disengaging said spring m' , and consisting of a tumbler entering said groove in the bolt and operated by the rotation of the latter.

4. In a breech-loading bolt-gun, the bolt a , having the grooves s s' s^2 and the tooth t , and the magazine m , having the projecting spring m' far enough below its top to hold the cartridge from engagement with the bolt, in combination with the tumbler n , having projections n' n^2 and top n^3 entering said grooves s s' s^2 and striking said tooth t , all as and for the purpose set forth.

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

PAUL MAUSER.

Witnesses:

CARL T. BUROHARDT,
OTTO WILHELM.