P. MAUSER.

AUTOMATIC FIREARM.

APPLICATION FILED AUG. 30, 1913.

1,107,815. **Patented Aug. 18, 1914.**

Fig. 1.

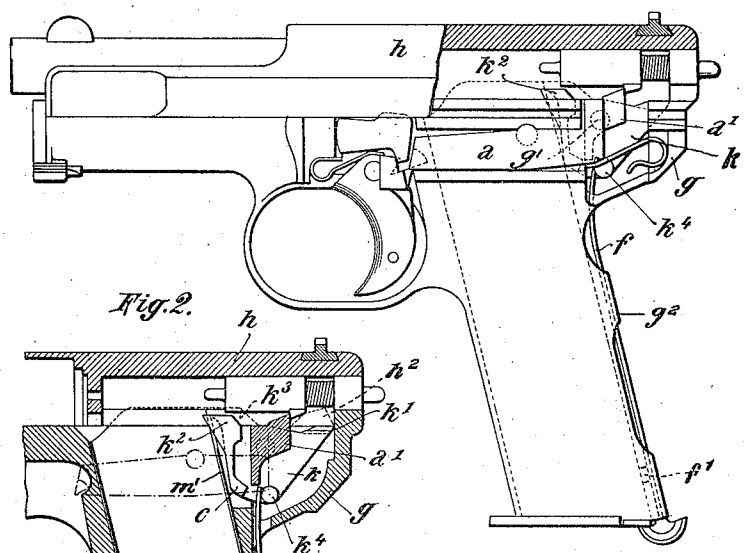


Fig. 2.

Fig. 3.

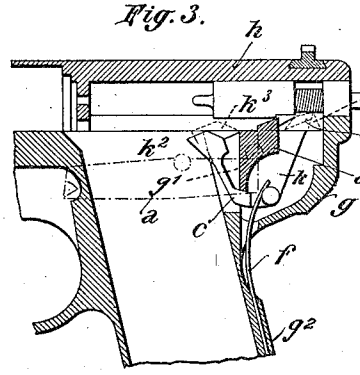


Fig. 4.

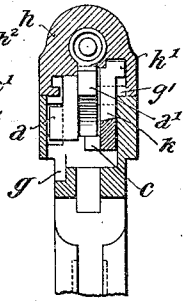


Fig. 5.

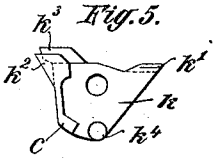


Fig. 6.

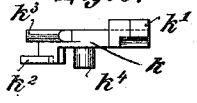
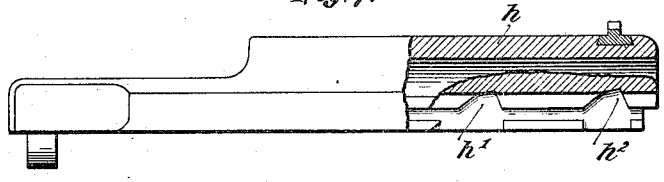


Fig. 7.



Witnesses:
M. F. Keating
F. C. Keeley

Inventor
Paul Mauser
By his Attorney
Charles J. Kintner

UNITED STATES PATENT OFFICE.

PAUL MAUSER, OF OBERNDORF-ON-THE-NECKAR, GERMANY.

AUTOMATIC FIREARM.

1,107,815. Specification of Letters Patent. Patented Aug. 18, 1914.

Application filed August 30, 1913. Serial No. 787,515.

To all whom it may concern:

Be it known that I, PAUL MAUSER, a subject of the Emperor of Germany, residing at Oberndorf-on-the-Neckar, Wurttemberg, in the Empire of Germany, have invented a certain new and useful Improvement in Automatic Firearms, of which the following is a specification.

The invention relates to firearms with detachable magazine and means for locking the breech block in the open position on the removal of the emptied magazine.

The invention has for its object to provide means for locking also the firing mechanism when the magazine is removed.

An embodiment of the invention is illustrated by way of example in the accompanying drawing, in which:—

Figure 1 is a general view of the firearm ready for firing (closed) with magazine inserted, a portion of the breech block being broken away and the side plate covering the trigger mechanism removed. Fig. 2 is a longitudinal section with the parts in the same position as in Fig. 1. Fig. 3 shows the position of the parts with the magazine removed. Fig. 4 is a vertical cross section of Fig. 3. Figs. 5 and 6 show the locking member in front elevation and in top view. Fig. 7 is an elevation of the breech block partly in section.

The locking member k, which is pivotally mounted at g^1 in the frame g of the firearm, presents the form of a two-armed lever the rear arm k^1 of which engages the breech block h when the magazine is removed while the front arm k^2 passing through a recess in the rear wall m^1 of the magazine m acts as ejector when the magazine is inserted in the frame.

The locking member k is acted upon by a spring f which is held in the frame by two clamps g^2 formed on the frame g and embracing the spring in the middle of its length on both sides (Fig. 1). This spring f serves also to hold the magazine m in the frame. For this purpose it is provided with a nose f^1 at its lower portion engaging a notch in the rear wall m^1 of the magazine (Fig. 1).

In accordance with the invention the locking member is so shaped that it is able to lock also the firing mechanism when the magazine is removed. In the embodiment of the invention illustrated in the drawing this is effected by providing the locking member with a lateral projection c which in the locking position engages beneath a shoulder a^1 on the rear arm of the sear a, thereby preventing the downward movement of the latter which is necessary for the release of the striking bolt, so that, when the magazine is removed, the striking bolt cannot be released.

When the magazine m is inserted, the lever k is held by the rear wall m^1 of the magazine acting on the projection k^3 of the lever k against the pressure of the spring f in the position in which it acts (with its front arm k^2) as ejector (Figs. 1 and 2).

When the last shot from the magazine is fired, the breech block h is locked after the recoil in the rearward (open) position in the known manner, for instance by the magazine follower. Now the empty magazine is removed to be exchanged for a full one. Of course the magazine follower is also removed so that the breech block would be released and return into the forward (closed) position. But now the lever k which is no more locked by the magazine wall m^1 in the ejector position (Fig. 1) is rocked by the spring f acting on the stud k^4 so that the rear arm k^1 of the lever enters the recess h^1 in the breech block h thereby locking the same in the open position (Fig. 2). At the same time the lug c of the locking lever k engages beneath the sear a thereby locking also the firing mechanism. When a magazine is again inserted in the firearm its rear wall m^1 presses the projection k^3 of the lever k upward, so that this lever is again rocked into the ejector position (Fig. 1) against the action of the spring f. The breech block h is thereby released from engagement with the rear arm k^1 of the lever k so that it can freely move into the closed position. In this movement it pushes the first cartridge from the magazine into the barrel so that the arm is now again ready for firing, the firing mechanism being also released from engagement with the locking lever k.

The breech block is provided with two recesses h^1, h^2, one or other of which is engaged by the rear arm k^1 of the locking member according as the breech block is in the open or in the closed position. The second recess h^2 enables the locking member to lock the firing mechanism also when the breech block is in the closed position.

What I claim and desire to secure by Letters Patent of the United States is:—

1. In a firearm, the combination of a breech block, a firing mechanism, a detachable magazine, and means adapted to lock the breech block in the open position and also the firing mechanism when the magazine is removed.

2. In a firearm, the combination of a breech block, a firing mechanism, a detachable magazine, and means adapted to act as an ejector when the magazine is in the frame and also adapted to lock the breech block in the open position and also the firing mechanism when the magazine is removed.

3. In a firearm, the combination of a breech block, a firing mechanism, a detachable magazine, a pivoted two-armed lever, one arm of said lever being adapted to act as an ejector when the magazine is in the frame, and the other arm being adapted to lock the breech block in the open position when the magazine is removed, and a lug on said lever adapted to lock the firing mechanism when the magazine is removed.

4. In a firearm, the combination of a breech block, a firing mechanism, a detachable magazine, and a member adapted to lock the breech block in the open position and also the firing mechanism when the magazine is removed, and means for bringing said locking member into locking engagement with said breech block and with said firing mechanism.

5. In a firearm, the combination of a breech block, a firing mechanism, a detachable magazine, and a member adapted to lock the breech block in the open position and also the firing mechanism when the magazine is removed, and means for bringing said locking member into locking engagement with said breech block and with said firing mechanism, said means being adapted to be counteracted by said magazine to hold said locking member out of locking engagement with said breech block and with said firing mechanism.

6. In a firearm, the combination of a breech block, a firing mechanism, a detachable magazine, and a member adapted to lock the breech block in the open position and also the firing mechanism when the magazine is removed, and means for bringing said locking member into locking engagement with said breech block and with said firing mechanism, and a spring adapted to press said locking member into locking engagement with said breech block and with said firing mechanism.

7. In a firearm, the combination of a breech block, a firing mechanism, a detachable magazine, and a member adapted to lock the breech block in the open position and also the firing mechanism when the magazine is removed, and means for bringing said locking member into locking engagement with said breech block and with said firing mechanism, and a spring for holding said magazine in the frame and adapted to press said locking member into locking engagement with said breech block and with said firing mechanism.

8. In a firearm having a breech block, a firing mechanism and a detachable magazine, a member adapted to lock the breech block when the magazine is removed, said breech block having two recesses one or the other of which is engaged by said locking member according as the breech block is open or closed, and a lug on said locking member adapted to lock the firing mechanism when the magazine is removed.

9. In a firearm having a breech block, a firing mechanism and a detachable magazine, a member adapted to act as an ejector when the magazine is in the frame and also adapted to lock the breech block when the magazine is removed, said breech block having two recesses one or the other of which is engaged by said locking member according as the breech block is open or closed, and a lug on said locking member adapted to lock the firing mechanism when the magazine is removed, a spring for bringing said locking member into locking engagement with said breech block and with said firing mechanism and adapted to be counteracted by said magazine to hold said locking member out of engagement in the position in which it acts as ejector.

10. In a firearm having a detachable magazine and a breech block, a spring pressed two-armed locking lever, said breech block having a pair of recesses one or other of which is engaged by the rear arm of said locking member according as the breech block is open or closed, the fore arm of said locking lever passing up through a recess in the magazine wall and adapted to act as an ejector, a lateral tappet on said locking lever cooperating with the wall of said magazine, a trigger mechanism and a lateral projection on said locking lever for engaging said trigger mechanism.

In testimony whereof I affix my signature in presence of two witnesses.

PAUL MAUSER.

Witnesses:

FRIEDRICH EICHHORN,
FRIDA KLAITER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."