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K. HEINEMANN
AUTOMATIC FIREARM
Filed Dec. 26, 1929

1,825,904

Fig.1.

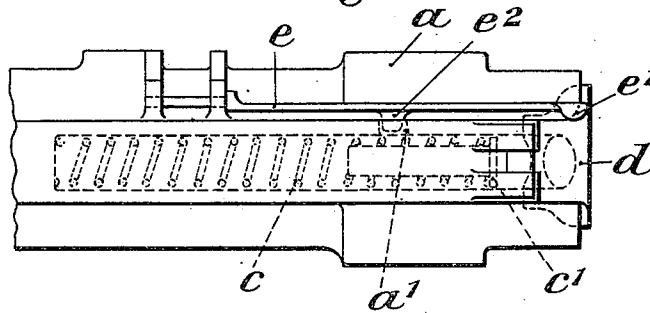


Fig.2.

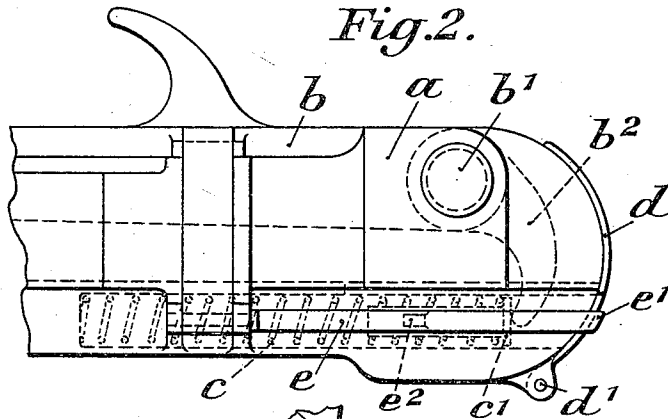
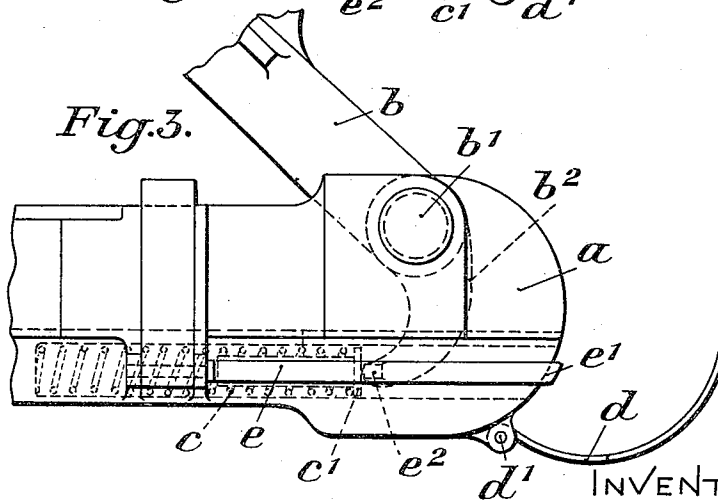


Fig.3.



INVENTOR:
Karl Heinemann
BY *L. J. Gaudin*
ATTORNEY.

UNITED STATES PATENT OFFICE

KARL HEINEMANN, OF DUSSELDORF, GERMANY, ASSIGNOR TO RHEINISCHE METALL-
WAAREN UND MASCHINENFABRIK, OF DUSSELDORF-DERENDORF, GERMANY, A
CORPORATION OF GERMANY

AUTOMATIC FIREARM

Application filed December 26, 1929, Serial No. 416,572, and in Germany April 29, 1929.

This invention relates to an automatic fire-arm.

In previously known automatic firearms, the removal of the breech is rendered difficult by the pressure exerted on it by the previously compressed closing spring. In the first place, the pressure of said spring interferes with the removal of the breech parts and, after the breech is released, the expansion of the spring is liable to injure the gun parts or endanger their protection.

The invention obviates this by the provision of a movable latch which, in its inner position, forms an abutment for the end of the spring pressing on the breech, preventing its outward pressure and relieving the breech from the same, so that the latter can be removed easily and without danger. Preferably, such latches, when applied to existing firearms, are so connected by suitable means with parts which open when the breech is opened that they are automatically thrown into latching position when the gun is opened.

The drawings represent an embodiment of the invention applied to an automatic gun with toggle-link closure.

Figure 1 is a side elevation of the rear part of the casing,

Fig. 2 is a plan with the breech closed, and

Fig. 3 is a plan with the toggle open during the opening of the breech.

In the breech casing *a* is pivoted on the pin *b'* the rear portion *b* of the toggle-link closure. On the nose *b²* of portion *b*, the compression spring *c* acts through plate *c'* in the direction to close the toggle and close the breech, not shown. The casing *a* is open on the toggle-link side and is closed at the rear by a flap *d*, pivoted at *d'*. A flat spring *e*, fastened to the casing, extends with its rear nose-shaped end *e'* over the upper edge of the flap *d* when closed, and is raised and put under tension by said flap. A nose *e²*, on the lower side of the spring *e* and projecting towards the casing, enters, when the flap *d* is opened, a recess *a'* in the upper spring housing wall and comes into the path of movement of the spring plate *c'*, but, after the spring *e* is raised by the closing of the flap, the nose *e²* is withdrawn from recess *a'*.

When the breech is to be removed, the flap *d* is first swung open, whereupon the rear end of the spring *e* is lowered and its nose *e²* automatically comes into the path of the plate *c'*. Then the closing spring is placed under partial compression by a partial opening of the toggle-links, until the plate *c'* has slid past the nose *e²* and is retained by the same. Now the closing spring is locked and no longer presses on pin *b'*, which can, therefore, easily be taken out, whereupon the toggle and the breech can be removed from the gun without any danger. After the breech and pin *b'* are replaced, the closing of flap *d* retracts the nose *e²* of flat spring *e* and releases plate *c'*, so that the closing spring *c* is again operative upon the breech.

The spring latch can also be so controlled that the described partial opening of the breech to lock the closing spring is unnecessary. For example, the latch nose may be formed directly on a forwardly projecting arm of the flap *d*, in which case it passes behind the spring plate *c'* when the flap is opened and holds it off the link part *b²* while holding the spring *e* compressed.

I claim as my invention:—

1. In an automatic gun, a compression spring tending to close the breech; a plate at one end of said spring through which the latter acts, a spring latch for said plate to hold said spring compressed, a pivoted flap for the rear end of the casing, and a nose on the end of said latch in position to be engaged by said flap when the latter is in closed position and thereby unlatch said plate and spring.

2. In an automatic gun, a compression spring tending to close the breech, a plate at one end of said spring through which the latter acts, a spring latch for said plate to hold said spring compressed, a pivoted flap for the rear end of the casing, and means on the end of said latch in position to be engaged by said flap when the latter is in closed position and thereby unlatch said plate and spring.

In testimony whereof, I affix my signature.

KARL HEINEMANN.