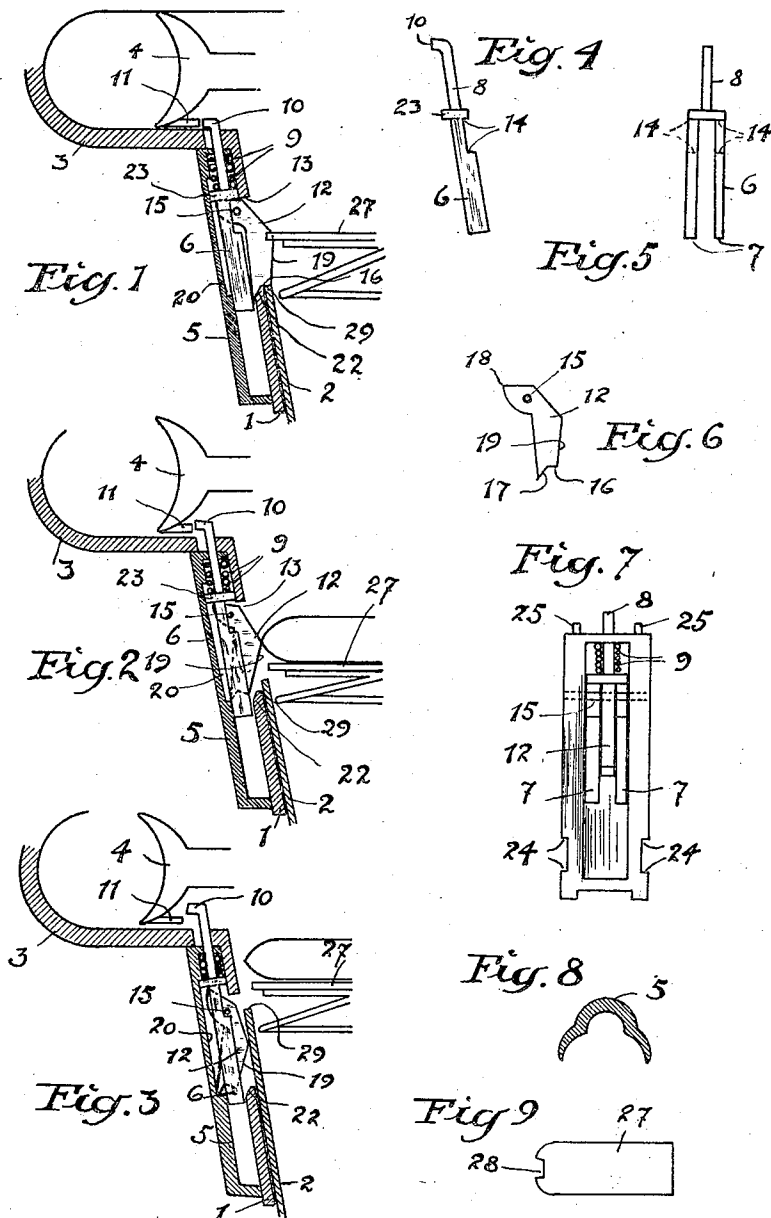


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SAFETY MEANS FOR AUTOMATIC PISTOLS AND SIMILAR FIREARMS.
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SAFETY MEANS FOR AUTOMATIC PISTOLS AND SIMILAR FIREARMS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, BERTIL ADOLF BLECKERT RYDBERG, a subject of the King of Sweden, residing at Kyrkogatan 60, Sköfde, Sweden, have invented certain new and useful Improvements in Safety Means for Automatic Pistols and Similar Firearms, of which the following is a specification.

In automatic pistols and similar firearms accidental shots often happen due to the fact that, after the firing has been finished, one overlooks, that, though the magazine together with the cartridges located in the same, precautionously has been removed, a cartridge however may remain in the barrel chamber. For that reason safety means have been proposed, consisting of a spring actuated locking member for the trigger, which, as the magazine is removed and emptied, is brought by the spring into a position in which it locks the trigger and consequently prevents the discharging of a cartridge remaining in the barrel chamber.

Safety means of the said type, however, do not prevent the reinserting of the emptied magazine, during which operation the said locking member is brought out of its active position and the trigger, consequently, is released, so that discharging of the cartridge remaining in the barrel chamber is possible. For that reason as many accidental shots at least happen, when the emptied magazine has been inserted into the firearm, as while the magazine has been removed. For the removing of the said disadvantage a magazine stopping member, according to this invention, is combined with the said safety means, which member is so arranged, that it prevents the insertion of an emptied magazine. At the inserting of a magazine, charged with cartridges, on the other hand, the said stopping member is moved aside, so that the magazine may be inserted. During the said operation the magazine stopping member moves the trigger locking means out of its active position, so that discharging is possible. In this manner full safeguard against accidental shots is gained.

A form of the invention, adapted to an ordinary pistol of the so-called Browning system, is shown in the accompanying drawing. Figure 1 shows in a vertical section parts of the handle, the magazine and the trigger. Figs. 2 and 3 are similar sections,

some parts being shown in positions differing from those shown in Fig. 1. Figs. 4 to 9 inclusive are details.

1 designates a portion of the handle, 2 a magazine inserted in the same, 3 the trigger-guard and 4 the trigger. To the front wall of the handle 1 a casing 5 is fixed in any suitable manner, in which a trigger locking member 6 is slidably mounted. According to the drawing the said trigger locking member 6 comprises two shanks 7, 7, connected with one another. From the connecting part a rod 8, Fig. 5, extends longitudinally of the shanks. A spiral spring 9 is slid on the said rod 8 and bears against the part connecting the shanks 7 and against the part of the casing 5, located nearest to the trigger-guard 3. The spring 9 tends to move the trigger locking member 6 into such a position that the bent end 10 of the rod 8 is located opposite to a projection shoulder 11, or the like, on the trigger 4. Between the two shanks 7, 7 a magazine stopping member 12 is located, which partially extends into an opening 13 provided in the front side of the handle 1. In the shanks 7, 7 notches 14, 14 for a pin 15, fixed to the stopping member 12, are provided, the ends of said pin being journaled in the casing 5. The magazine stopping member has three projections, points, or the like, 16, 17 and 18, Fig. 6, and a bearing surface 19, the object of which will be stated below. In the wall of the casing 5 a groove 20 is cut, into which a projection 23, or the like, on the trigger locking member 6 extends and guides the said member. The said projection 23 also forms a bearing surface for the projection 18 when located in a certain position. The lower edge of the opening 13 is beveled, as shown at 22, and the projection 17 of the member 12 bears against the said beveled surface, when the member 12 occupies a certain position.

The cross section of the casing 5, which has a rough outer side, is preferably shaped as shown in Fig. 8, so that the casing fits snugly to the handle 1. The said handle is provided with hooks or the like (not shown in the drawing), which engage notches 24, 24 provided in the casing 5, Fig. 7, and by means of projections, or the like, locks the casing to the handle. Further, the casing is provided with two pins 25, which, for the fixing of the casing to the handle, are put

into holes provided in the trigger-guard 3. 26 is a recess for the flange of the bottom wall of the magazine. In the cartridge carrier 27 a notch 28 for the magazine stopping member 12 is provided.

The described device operates in the following manner: Assuming that the magazine has been withdrawn, the pistol is cocked and a cartridge is located in the barrel chamber, the trigger locking member 6 then is depressed by the spring 9 to the position shown in Fig. 1, so that its locking projection 10 is located opposite to the projection 11 of the trigger and the retracting of the trigger, and consequently the discharging of the pistol, are prevented.

When the magazine has been withdrawn, the magazine stopping member 12 can move to a certain degree, so that the said member, owing to the pressure of the trigger locking member 6 against the projection 18, is swung around the pin 15 and the bearing surface 19 of the member 12 is moved backward into the magazine chamber, see Fig. 1. The projection 17 now bears against the beveled edge 22, thus preventing further movement of the magazine stopping member 12. If now an empty magazine is inserted, the cartridge carrier 27 passes freely behind the bearing surface 19 of the member 12 owing to the notch 28, while the front edge 29 of the magazine 2 strikes the projection 16 and the magazine is stopped, the complete introducing of the empty magazine being thereby prevented, see Fig. 1. As, on the other hand, a magazine, charged with cartridges, is inserted the end of the bullet of the uppermost cartridge is forced against the bearing surface 19 of the member 12 and the said member is swung around the pin 15, which results in the projection 16 being moved out of the path of the edge 29 of the magazine, see Fig. 2. As, now, the magazine is inserted for a farther distance, the said edge 29 is forced against the bearing surface 19, so that the member 12 is swung into such a position, that the edge 29 will clear the same and the magazine may be completely introduced into the magazine chamber, see Fig. 3. While the member 12 is swung in the described manner, its projection 18 actuates the part connecting the shanks 7, 7, which results in the trigger locking member 6 being moved against the action of the spring 9, first to the position shown in Fig. 2 and then to the position shown in Fig. 3. The locking projection 10 is now located above the path of the projection 11, so that the pistol may be discharged.

The safety device may, without any difficulty, be applied also to existing automatic pistols which is effected simply by providing the trigger with the projection 11, providing an opening in the trigger-guard for the trigger locking member, slightly planing

the round front wall of the handle, making the opening 13 in the wall, providing the handle with hooks and slightly adjusting the cartridge carrier, the magazine spring and the bottom flange of the magazine.

Owing to the fact that the fixing of the safety device is effected without means of screws it may easily be applied to the pistol and disengaged from the same.

The form of the invention described above and shown in the drawing is to be considered only as an example, as alterations of the construction, evidently, may be made without exceeding the limits of the invention. The main point is that the device is so constructed that it fully prevents accidental shots resulting from the arm not having been completely emptied after shooting has been finished.

The present invention may, evidently, be applied also to automatic fire arms of other types than that described above and shown in the drawing.

I claim:

1. Safety device for automatic pistols and similar fire arms, provided with spring actuated locking means for the trigger, which, as the magazine is withdrawn, is held by the spring in its locking position and thus prevents the discharging of a cartridge remaining in the barrel chamber, characterized by the fact that with the said locking member (6) a stopping member (12) for the magazine is combined, which stopping member (12) is so located in the path of the magazine and so arranged, that it can be moved out of its stopping position only by cartridges provided in the magazine, the locking member (12) simultaneously moving the trigger locking member (6) out of its active position and keeping the same in the inactive position, while the magazine stopping member (12) is not shifted by an empty magazine and does not permit the inserting of the same.

2. A form of the magazine stopping member (12) stated in claim 1, characterized by the fact that it consists of a lever or the like, which is swingingly mounted and provided with a projection (18), which actuates the trigger locking member (6), a projection (16), which is located in the path of the magazine for the locking of the magazine, and with an oblique surface (19) having such a position, that, when a magazine charged with cartridges, is inserted, the uppermost cartridge strikes the said surface (19) and swings the magazine stopping member (12) for such a distance, that, during the continued insertion of the magazine the front edge of the magazine strikes the surface (19) and swings the member (12), so that the latter moves the trigger locking member (6) fully out of its active position.

3. A safety device according to claim 1,

characterized by the fact, that the trigger
locking member (6) and the magazine stop-
ping member (12) are provided in a casing
(5) detachably fixed to the front part of the
5 handle of the fire arm by means of spring
hooks, locking projections, pins or the like,
the magazine stopping member (12) extend-
ing through an opening in the wall of the

magazine casing and into the path of the
magazine.

In testimony whereof I have affixed my
signature in the presence of two witnesses.

BERTIL ADOLF BLECKERT RYDBERG.

Witnesses:

ROBERT APELGREN,

EDWARD LARSON.

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