

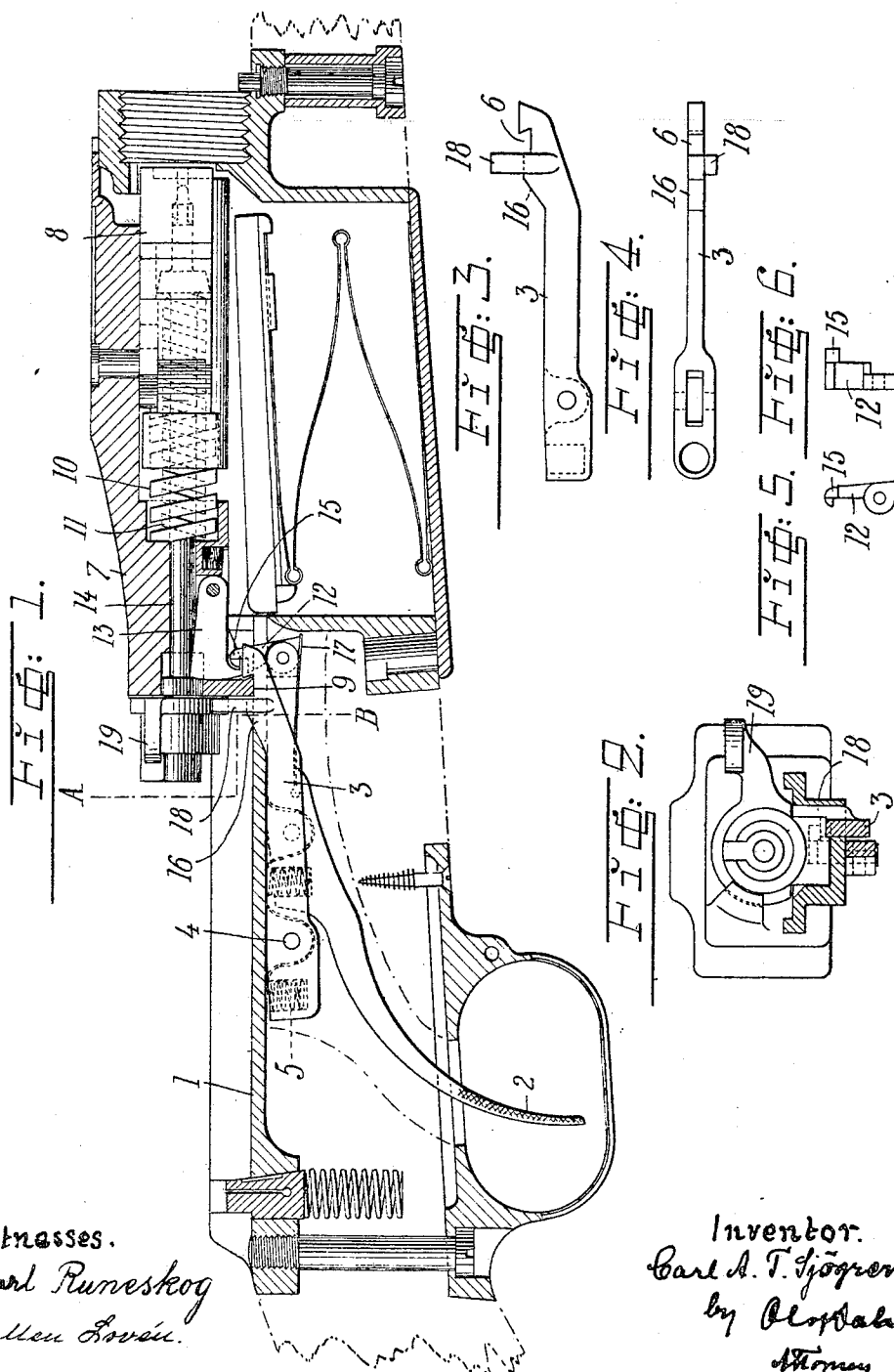
No. 866,972.

PATENTED SEPT. 24, 1907.

C. A. T. SJÖGREN.
GUN.

APPLICATION FILED JUNE 1, 1906.

2 SHEETS—SHEET 1.



Witnesses.
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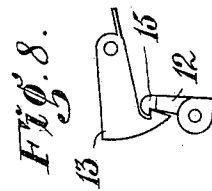
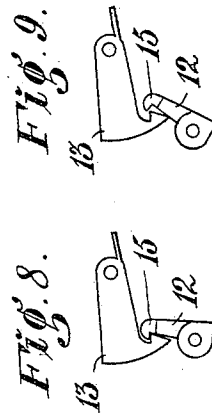
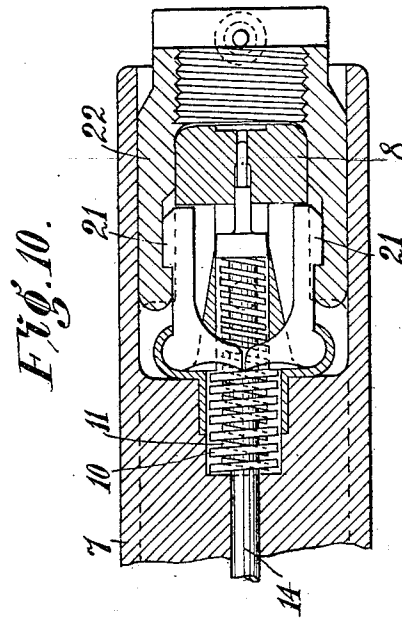
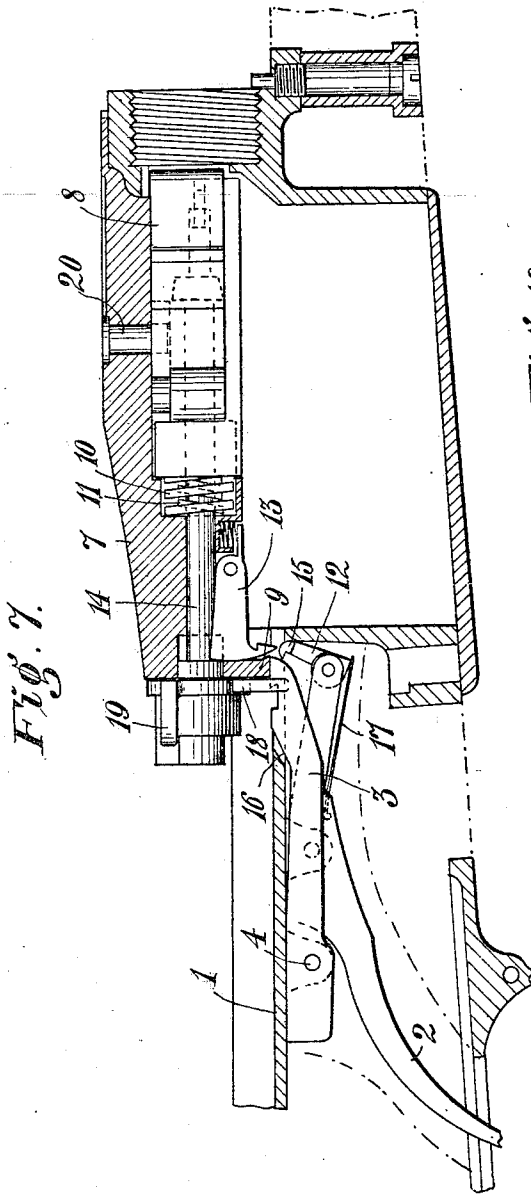
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2 SHEETS—SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

CARL AXEL THEODOR SJÖGREN, OF STOCKHOLM, SWEDEN.

GUN.

No. 866,972.

Specification of Letters Patent.

Patented Sept. 24, 1907.

Application filed June 1, 1906. Serial No. 319,699.

To all whom it may concern:

Be it known that I, CARL AXEL THEODOR SJÖGREN, a subject of the King of Sweden, and a resident of Karlbergsvägen 9, Stockholm, Sweden, have invented a new and useful Improvement in Guns, of which the following is a specification, reference being had to the drawings accompanying and forming a part hereof.

This invention relates to an improvement in guns of the kind described in my United States Letters Patent No. 808,118 dated December 26th 1905. Such guns suffer from the disadvantage that the movable weight, after having brought the breech-block into closed position, has a tendency to again move backwards, the said weight compressing in a certain degree its spring or springs which thereupon exert a pressure backwards on the weight.

The object of the present invention is to remove the said inconvenience, and it consists, chiefly, in the provision of a pawl, or equivalent device, which, in the same moment as the weight has brought the breech-block into closed position, engages the weight and thereby prevents the latter from moving backwards. The said pawl, or the like, may suitably be operated by the trigger in such a manner that the same will be disengaged from the weight by turning the trigger backwards for firing.

In the accompanying drawings I have illustrated one embodiment of my invention.

Figure 1 shows a longitudinal section of a part of gun, the stock being shown by dotted lines. Fig. 2 is a section on line A—B in Fig. 1. Figs. 3 and 4 show side-view and plan-view of the pawl. Figs. 5 and 6 show elevations at right angles to each other of the hook operating the sear. Fig. 7 is a longitudinal section of a part of the gun corresponding to Fig. 1 but showing the parts in the positions which they take up when, after firing, the weight has moved into its most forward position in relation to the gun and the hook has released the sear and the latter returned into its original position. Figs. 8 and 9 show the relative positions of the hook and the sear before firing and at the instant just before the sear is released. Fig. 10 is a horizontal section showing the means for locking the breech in closed position.

In the casing 1 and at the side of the trigger 2 is provided a pawl 3, or the like, the shape of which is more clearly shown in Figs. 3 and 4, the said pawl being pivoted to a pin 4 and actuated by a spring (or springs) 5 tending to turn the pawl upwards. At the forward end of the said pawl has a recess 6 which, when the movable weight 7 supporting the breech-block after firing returns into the position shown in Fig. 1, will catch a projection 9 on the weight 7 and thereby lock the latter. In firing the pawl 3 obviously must be disengaged from the said projection 9 so as to permit the weight 7, which by the recoil moves forwards and compresses the spring

10 and the firing-pin-spring 11, as shown in Fig. 7 to move backwards when the recoil has ceased. For this purpose the hook 12 operating the sear 13 is provided with a projection 15 bearing against the upper side of the pawl 3 in front of the said recess 6. When the trigger in firing the gun is turned backwards in the usual manner, the said projection 15 of the hook 12, as is easily understood, will turn the pawl 3 downwards thereby disengaging the same from the projection 9.

In the forward movement of the weight the sear 13 turns the hook 12 forwards compare Figs. 8 and 9 and will thereby be released from the latter, as shown in Fig. 7. At the same time the projection 15 of the hook 12 will be disengaged from the pawl 3, the latter thereupon turning upwards, until the portion of the same in front of the recess 6 strikes the projection 9. The weight 7 will thereupon be thrown backwards, the projection 9 during this movement being not caught by the recess 6 on account of the portion of the pawl 3 behind the recess 6 being somewhat lower than the portion in front of the latter and the projection 9 in the longitudinal direction of the gun having substantially the same extension as the said recess 6, so that the said projection 9 in the backward movement of the weight will pass the rear edge of the recess 6 before the said edge in the upward movement of the pawl has arrived in level with the underside of the said projection. During the backward movement of the weight 7 the bolt or pin 20 (Fig. 7) strikes the inwardly projecting arms of the angle-levers 21 (Fig. 10) serving to lock the breech-block in closed position, thereby turning said levers so as to disengage their forwardly extending arms from the notches in the part 22 screwed on the rear end of the barrel. The breech-block is thus released and caused to follow the weight in its continued movement backwards. When the weight, after having reached its rearward position, moves forwards and approaches the position shown in Fig. 1, the projection 9 strikes an inclined surface 16 on the pawl 3 and turns the latter downwards. As soon as the projection 9 arrives above the recess 6 the pawl 3 moves upwards and catches the projection 9. When the trigger 2 is released, the hook 12 moves upwards and the projection 15 slides on the forward end-surface of the pawl 3, until it has passed the upper edge of the same, whereupon the hook 12 by the action of a spring 17 turns backwards and again arrives into engagement with the sear 13 (Fig. 1). At the same time the breech-block 8 is again locked in position by the hooks at the forward ends of the angle-levers 21 (Fig. 10) being forced, by the spring 10, into engagement with the notches at the inside of the part 22 screwed on the barrel.

In as much as the principal object of the present invention is to prevent the backward movement of the weight after the breech-block has been brought into closed position, the portion of the pawl in front of the

recess is dispensable. The said portion, however, serves to prevent accidental firing otherwise caused by moving the weight forwards by hand too violently.

In order to render it possible to release the weight by hand, for instance if a cartridge misses fire, the pawl is provided with an upright projection 18 which in the construction shown is placed below a lever 19 which in well known manner is used for compressing the firing-pin-spring 11 by hand. If the said lever is turned down, the pawl 3 will obviously be disengaged from the projection 9, whereupon the weight can be drawn backwards for removing the cartridge and inserting another one. Obviously any other suitable means may be used for disengaging the pawl 3 by hand.

15 Having now described my invention, what I claim as new and desire to secure by Letters Patent is:

1. The combination with a gun, of a longitudinally reciprocating breech-block, a movable weight on the said breech-block adapted to move forward on account of its inertia, when the gun recoils, a spring between the said weight and the breech-block adapted to be compressed, when the former moves forward, and to throw the said

weight backward, when the recoil ceases, a firing-pin, a firing-pin-spring adapted to be compressed by the said weight in its forward movement, and means for locking the weight on the closing of the breech, substantially as and for the purpose set forth. 25

2. The combination with a gun, of a longitudinally reciprocating breech-block, a movable weight on the said breech-block adapted to move forward on account of its inertia, when the gun recoils, a spring between the said weight and the breech-block adapted to be compressed, when the former moves forward, and to throw the said weight backwards, when the recoil ceases, a firing-pin, a firing-pin-spring adapted to be compressed by the said weight in its forward movement, a trigger, a pawl adapted to lock the weight on the closing of the breech, a hook pivoted to the trigger, a sear adapted to be operated by the said hook, and a projection on the latter bearing on the upper side of the said pawl, substantially as and for the purpose set forth. 30 35 40

In testimony whereof I have hereunto signed my name in presence of two witnesses.

CARL AXEL THEODOR SJÖGREN.

Witnesses:

KARL RUNCKOG,
CARL W. OLSSON.