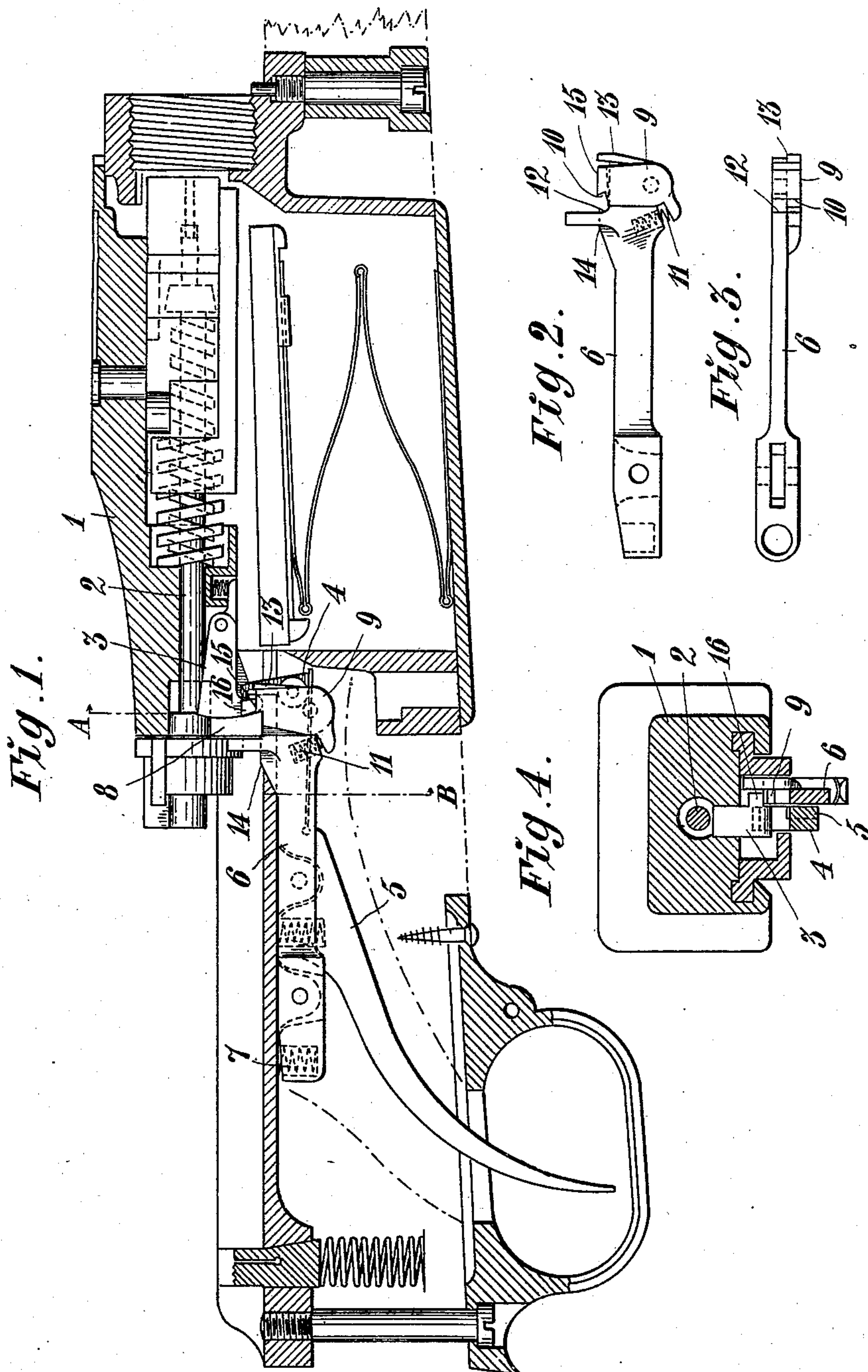


C. A. T. SJÖGREN.
RECOIL LOADING GUN.
APPLICATION FILED JULY 14, 1909.

954,546.

Patented Apr. 12, 1910.



Witnesses

Andersson
Karl. Dunestog.

Inventor

C. Axel T. Sjögren

UNITED STATES PATENT OFFICE.

CARL AXEL THEODOR SJÖGREN, OF STOCKHOLM, SWEDEN, ASSIGNOR TO AKTIEBOLAGET SVENSKA VAPEN-ÖCH AMMUNITIONS FABRIKEN, OF STOCKHOLM, SWEDEN.

RECOIL-LOADING GUN.

954,546.

Specification of Letters Patent.

Patented Apr. 12, 1910.

Application filed July 14, 1909. Serial No. 507,587.

To all whom it may concern:

Be it known that I, CARL AXEL THEODOR SJÖGREN, a subject of the King of Sweden, residing at Stockholm, in the Kingdom of Sweden, have invented new and useful Improvements in Recoil-Loading Guns, of which the following is a specification, reference being had to the drawing accompanying and forming a part hereof.

This invention relates to improvements in recoil-loading guns in which the recoil causes an inertia weight to move forward and thereby compress the firing-pin spring.

In recoil-loading guns of this kind a retaining device is provided which retains the weight and prevents it from backward movement before firing as well as from forward movement and premature firing of the gun. The retaining device has a notch adapted to engage a shoulder on the weight. On account of the rear edge of the said notch having a lower position than the anterior one, the shoulder is free to slide backward without being caught by the notch, whereas, on the other hand, the shoulder is engaged by the notch, when the said shoulder again moves forward.

The above described device does not work entirely satisfactorily, since the notch must necessarily have at least the same width as the shoulder, by which it is not precluded that the shoulder will be engaged by the notch, when the weight moves backward so that the said backward movement is prevented.

The object of the invention is to avoid the said drawback and provide a device of the character described which in all cases works entirely satisfactorily.

The invention consists, chiefly, in that the abutment or shoulder forming the anterior wall of the notch of the retaining device is formed by a pawl pivotally connected to the said device, said pawl being actuated by a spring tending to turn the said pawl backwardly, toward the lower shoulder at the rear side of the notch. When the pawl is turned backward, the distance between the two shoulders forming the walls of the notch is less than the width of the shoulder of the weight. The spring pawl thus elastically catches the forward moving weight.

In the drawing, Figure 1 is a longitudinal section of a gun embodying the invention, Figs. 2 and 3 are side-view and plan view,

respectively, of the retaining lever with its pawl, and Fig. 4 is a cross-section on line A—B of Fig. 1.

Referring to the drawing, 1 is the reciprocatory weight, 2 is the spring-actuated firing-pin which is placed in the weight, 3 is the sear, 4 is the sear-operating pawl, and 5 is the trigger. The weight-retaining lever is actuated by one or more springs 7 acting to press its fore end upwardly. Projecting from the weight 1 is a shoulder 8 adapted to be engaged by the weight-retaining lever.

Pivotally attached to the weight-retaining lever is a pawl 9 having at its upper side a lug or shoulder 10 (Fig. 2) which is pressed by a spring 11 toward the fixed lug or edge 12 of the weight-retaining lever. The edge 12 is somewhat lower than the shoulder 10. The swinging of the lug of the pawl away from the fixed edge 12 is limited by a fixed abutment 13 at the end of the retaining lever 6.

The device hereinbefore described works in the following manner: When the weight 1 moves forward, its shoulder 8 in known manner slides on the inclined surface 14 behind the lug 12 whereby the retaining lever is turned downward. Upon its further forward movement the shoulder 8 meets the backwardly turned lug 10 of the pawl 9 and turns it forward. When the lugs 10 and 12 have arrived at a distance from each other equal to the width of the shoulder 8 the lugs slide upwardly about the shoulder 8 since the weight-retaining lever is pressed upward by its spring 7. The weight is then engaged and cannot move in any direction. When, in firing the gun, the retaining lever 6 is pulled downward, in the manner hereinbelow described, and disengages the shoulder 8, the pawl 9 immediately turns backward so that the distance between the lugs 10 and 12 is decreased. When thereupon the weight thus released from the retaining lever 6 moves forward after firing, the shoulder 8 first slides forward on the surface 15 of the pawl and thereupon, when the weight returns, slides backward. During its continued backward movement the shoulder 8 slides over the opening between the lugs 10 and 12 without entering between the same since, as hereinbefore set forth, the lugs are at a smaller distance from each other than the width of the shoulder 8. When the weight again moves forward, the shoulder

der 8 is again caught by the lug 10 in the manner hereinbefore described. The trigger pawl 4 in known manner engages the sear 3. In order to disengage the weight-retaining device in firing a lateral shoulder 16 on the sear projects, according to the invention, above the pawl 9 and bears on the surface 15 of the said pawl. When the trigger is pulled fully backward and the pawl 4 pulls the sear 3 downward, the shoulder 16 will thus press on the pawl 9 and the retaining lever 6 so that the latter is turned downward and releases the weight 1. It will be seen that the shoulder 16 projecting from the sear does not prevent the free movement of the weight-retaining lever.

It is obvious that instead of a retaining lever any other suitable retaining device may be employed.

I claim:

1. In a recoil-loading gun, the combination of a recoil-operated weight, a retaining device for the said weight acting to normally prevent it from backward movement, and a spring-actuated pawl pivotally attached to the said retaining device and acting to normally prevent the said weight from forward movement.

2. In a recoil-loading gun, the combination of a recoil-operated weight, a retaining device for the said weight acting to normally prevent it from backward movement, a spring-actuated pawl pivotally attached to the said retaining device and acting to normally prevent the said weight from forward movement, a trigger, and a sear adapted to be operated by the said trigger, said sear having a shoulder adapted to bring the pawl out of engagement with the weight when the sear is operated by the trigger.

3. In a recoil-loading gun, the combination of a recoil-operated weight, a retaining device for the said weight acting to normally prevent it from backward movement, a spring-actuated pawl pivotally attached to the said retaining device and acting to normally prevent the said weight from forward movement, a trigger, and a sear adapted to be operated by the said trigger, said sear having a shoulder bearing on the pawl of the retaining device.

CARL AXEL THEODOR SJÖGREN.

Witnesses:

ANNA SÖDERSTRÖM,
AUG. SÖRENSEN.