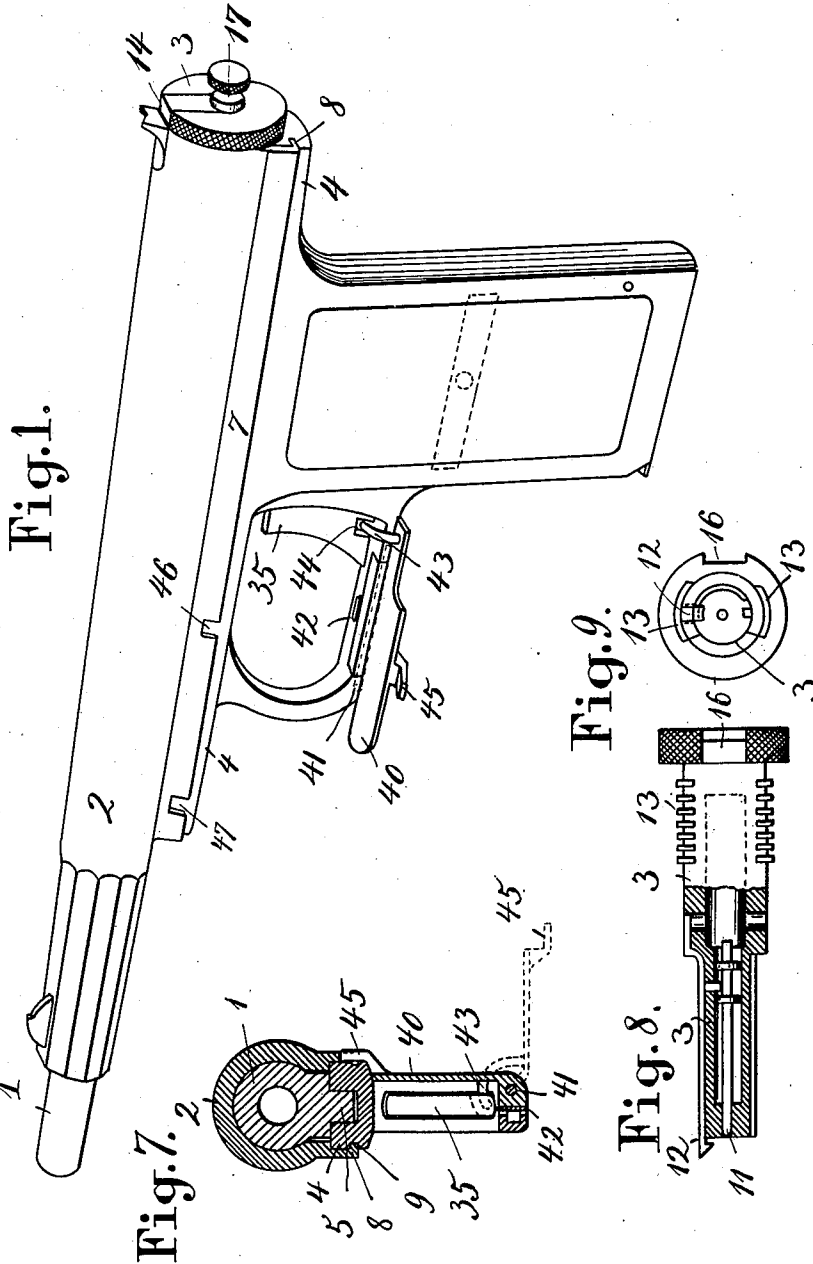


G. A. HANSEN.
PISTOL.
APPLICATION FILED DEC. 6, 1909.

965,386.

Patented July 26, 1910.

3 SHEETS—SHEET 1.



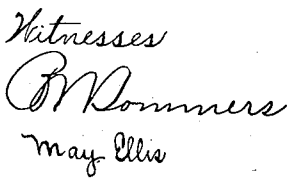
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3 SHEETS—SHEET 2.

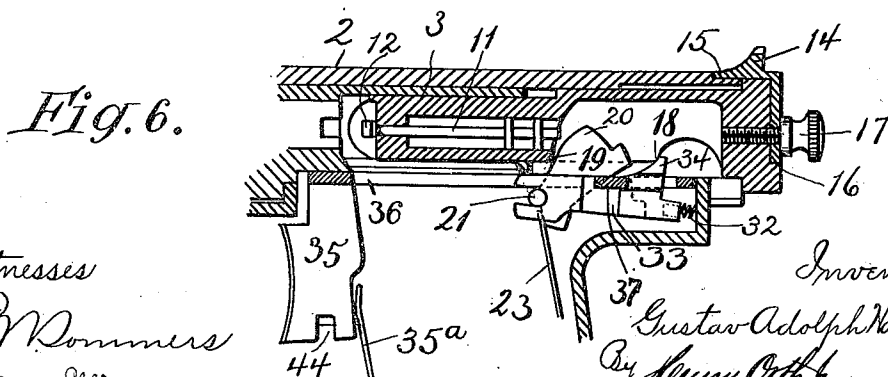
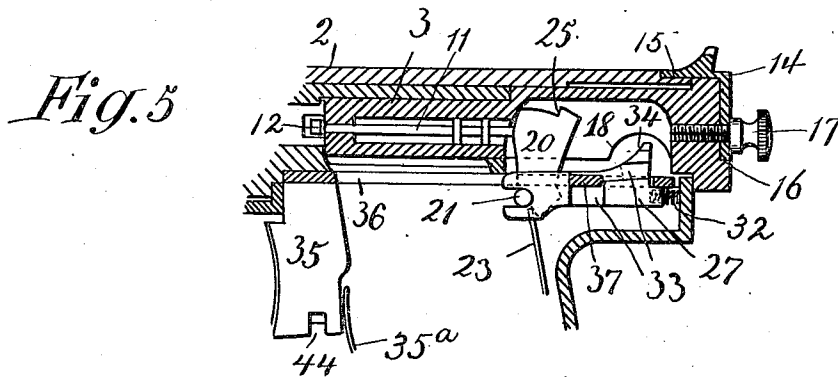
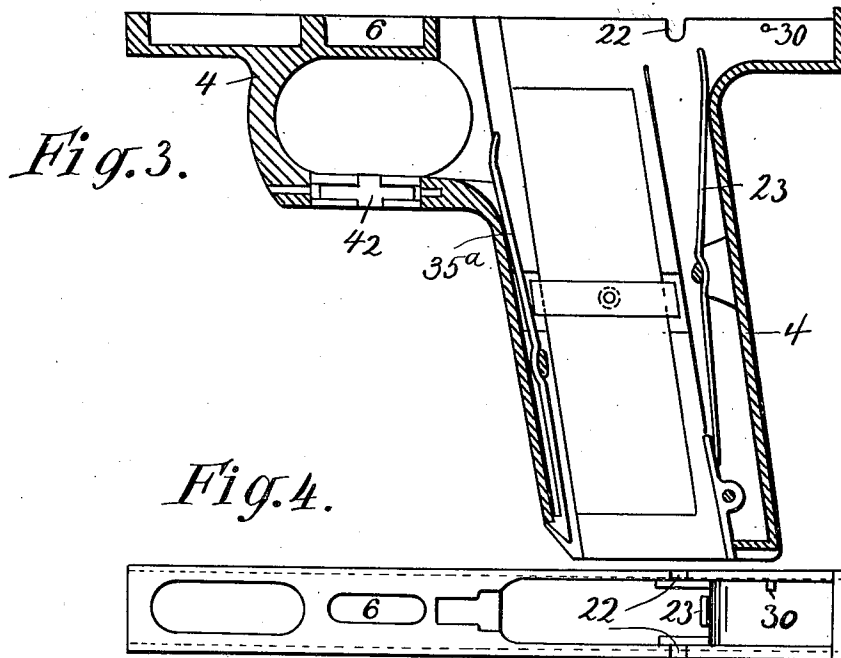


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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

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PISTOL.

965,386.

Specification of Letters Patent.

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Application filed December 6, 1909. Serial No. 531,733.

To all whom it may concern:

Be it known that I, GUSTAV ADOLPH HANSEN, a subject of the King of Norway, residing at Christiania, Norway, have invented certain new and useful Improvements in Pistols; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to recoil-loading pistols and has reference particularly to the trigger mechanism and the parts connected therewith.

This pistol belongs to the class of recoil-loaders, in which the magazine is placed in the stock or grip and the hammer pivoted behind the stock and covered by the bolt-carrier.

The invention primarily consists in so constructing and arranging the trigger that the fulcrum of the hammer may be disposed more closely under the breech bolt than heretofore, whereby the hammer spring at the beginning of the return movement of the breech bolt materially retards such movement, assists the action of the breech spring in this respect, and a material increase in the initial velocity of the missile is attained. The hammer spring will perform such function more readily owing to the fact that the point on the hammer on which the breech bolt presses is made almost as short as the arm on which the hammer spring acts. To bring into effect such a crowded arrangement of the hammer, the trigger is arranged in the form of a slide, which is guided between the bolt carrier and the frame of the pistol.

A further arrangement important to the effect aimed at consists in providing means, whereby the trigger will be perfectly free after the firing, *i. e.* the hammer and the sear exert no pressure on the trigger. This feature and the fact that the trigger has a rectilinear motion is of great importance in the use of the pistol.

The invention further consists in providing certain safety devices, whereby the bolt carrier as well as the trigger may be locked.

The pistol comprises very few parts al-

most entirely avoiding screws which adds greatly to the simplicity.

An embodiment of the invention is shown in the accompanying drawing wherein:

Figure 1 is a perspective view of the weapon the parts being in position for firing. Fig. 2 is a side elevation of the weapon ready for firing, the rear parts being shown in longitudinal section. Fig. 3 is a longitudinal section through the frame of the weapon. Fig. 4 is a plan view of the same. Fig. 5 is a sectional view of a portion of the weapon showing the firing mechanism in uncocked position. Fig. 6 is a similar view, showing the parts at the moment the hammer is being cocked. Fig. 7 is a cross section on the line VI—VI of Fig. 2. Figs. 8 and 9 are two detail views of the breech bolt. Fig. 10 is a plan view of the weapon with the bolt carrier and barrel removed. Fig. 11 is a cross section through the bolt carrier and the barrel immediately behind the breech. Figs. 12 to 15 are details of the parts of the trigger mechanism.

1, designates the barrel, 2 the bolt carrier, 3 the breech bolt and 4 the frame. The barrel has a comparatively long lug 5, which fits in a corresponding recess 6 in the frame. The bolt carrier fits over the frame, being provided on each side with lateral ribs 7, having projections 8 engaging in longitudinal grooves 9 in the frame, whereby the parts are held together. Between the barrel and bolt carrier lies the recoil spring 10 shown in dotted lines Fig. 2, which operates in a well known manner. The forward portion of the breech bolt 3 is provided with a firing pin 11 and extractor 12, Fig. 8 and extends into the rear portion of the barrel while the rear portion of the said bolt is connected with the bolt carrier by means of interrupted screw threads 13 similar to the screw-threaded locking mechanism in guns. The carrier and bolt are also connected by a small angular piece 14 fitted into corresponding recesses 15 and 16 in the carrier and bolt respectively and held therein by a screw 17. The hammer 20 is provided with two lateral lugs 21 which rest in slots 22 in the frame, Fig. 10. The hammer spring 23 presses against the nose 24 of the hammer, which latter has a lug 25 which is engaged by the underside of an offset 28 of the sear 27. The latter is a

U-shaped slidable member, the arms of which embrace the hammer 20, the two fore ends of the arms being fork-shaped, so that the slots 29 between the tines will inclose the lugs or pins 21 of the hammer. On the right hand side of the frame 4 is a small lug 30 (Figs. 4 and 10) which enters a somewhat wider slot 31 in the sear, thereby limiting the rocking movement of the latter. A small spring 32 presses the sear forward against the pins 21. The trigger 35 is attached to a slide 36, which as shown in Fig. 12, is a rectangular frame resting on the upper edge of the frame 4 of the weapon, and embracing at the back the hammer and the sear.

The frame 36 is provided on one side with a lug 37 which normally rests in the transverse portion of an angular recess 33 in the side of the sear and serves to lock the sear and slide together, as shown in Fig. 5. If the hammer is cocked, as shown in Fig. 1, and the slide is moved rearward by a pull on the trigger 35 the sear will be moved backward by the lug 37 engaging the wall of the recess and the offset 28 of the sear is moved off the lug 25 on the hammer and the latter is thrown forward by the spring 23 pressing on the nose 24.

When the shot is fired and the breech bolt thrown backward by the recoil the edge 18 of the bolt will first engage an inclined surface 34 on the sear forcing the sear downward, as shown in Fig. 6, and moving the vertical edge of said transverse recess 33 below the lug 37 so that the sear owing to the longitudinal portion of the recess 33 can be moved forward by the spring 32, it being assumed that the user of the weapon continues to press on the trigger thereby holding the trigger slide in its rear position. The continued backward movement of the breech bolt causes the hammer to be engaged by the edge 19 of the breech-bolt and pressed down whereupon the offset 28 on the sear engages the lug 25 on the hammer and holds the latter at full cock. Another shot cannot be fired until the trigger has been released by the finger of the operator when it will be moved forward by a spring 35^a which presses against the back of the trigger. As soon as the forward movement has taken place the lug 37 will again engage the transverse portion of the recess 33 so that the firing may be repeated. It will be seen that these operations take place without the trigger being acted upon by the moving parts which is of great importance for enabling the user to hold the pistol steady.

Another object of the invention is to provide a safety device for recoil-loading pistols, in which one and the same locking member locks the bolt carrier as well as the trigger.

The locking member consists of a wing-shaped arm 40, which when in the locking position covers the trigger-guard of the pistol. This arm 40 is connected by a hinge joint 41 to the trigger guard, a spring 42 in a well known manner securing the arm in its opened and in its closed position. The arm carries a finger 43, which in the closed position enters a recess 44 in the trigger, so that the latter cannot be moved, until the arm has reached its opened position. The top of the arm 40 is provided with a projection or finger 45, which enters a recess 46 in the bolt carrier 2 when the latter is in its foremost position, thus locking the bolt carrier and trigger simultaneously. The bolt carrier is also provided with a recess or notch 47, which may be engaged by the projection 45, if it is desired to hold back the bolt carrier for the purpose of taking the weapon apart.

As will be understood, on account of the greater length of the finger 43, the bolt carrier may be released by a small rotary movement of the arm 40 without releasing the trigger.

I claim:—

1. In a pistol of the class described, the combination with the frame, the reciprocating carrier and breech bolt, of a hammer and a trigger, said trigger comprising a sliding member disposed on top of the frame and provided with a slot in which the hammer plays.

2. In a pistol of the class described, a trigger mechanism comprising a trigger slide disposed between the frame and bolt-carrier, a trigger arm projecting from said slide, a sear disposed in a slot in the slide, and capable of a limited longitudinal as well as of an oscillatory motion, and a spring to press the sear forward.

3. In a pistol of the class described, a safety device comprising a locking member, hinged to the lower part of the trigger guard and having a finger, which in the closed position of the member locks the trigger and another finger corresponding with notches in the bolt carrier so as to lock the latter in either of its extreme positions.

4. A pistol of the class described, comprising a reciprocable breech bolt, a trigger slidable on the frame of the pistol, a hammer pivoted beneath and movable in the path of the bolt, a slidable sear adapted to engage the hammer and means operable by the trigger to slide the sear out of engagement with the hammer.

5. A pistol of the class described comprising a reciprocable breech-bolt, a trigger slidable on the frame of the pistol, a hammer pivoted in the frame beneath the bolt, a sear slidable relatively to the hammer having a slot engaged by a lug on the trigger slide, and a spring to press the sear forward.

6. A pistol of the class described comprising a reciprocable breech-bolt, a trigger having a slide mounted on the frame beneath the bolt, a hammer pivoted on the frame beneath the slide, an oscillatory and longitudinally movable sear, a spring to press the sear forward, and a lug on the slide to engage the sear to overcome the action of the spring.

10 7. A pistol of the class described comprising a reciprocable breech-bolt, a trigger having a slide mounted on the frame beneath the bolt, a hammer pivoted on the frame

and movable through a slide into the path of the bolt, a sear oscillative and longitudinally movable on the hammer pivot, a spring to press the sear against the pivot, a lug on the slide, said sear having an angular recess cooperating with said lug. 15

In testimony that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses. 20

GUSTAV ADOLPH HANSEN.

Witnesses:

HENRY BORDEWICH,
JOHN VAALER.