

No. 849,387.

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C. H. HANSEN.
SAFETY DEVICE FOR FIREARMS.
APPLICATION FILED APR. 17, 1905.

Fig 1

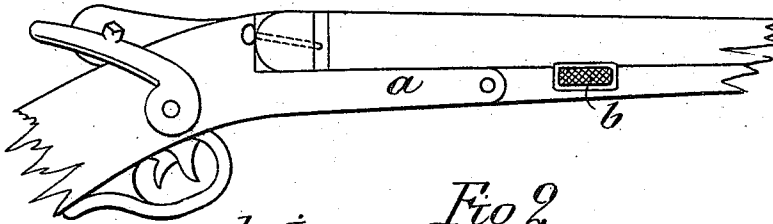


Fig 2

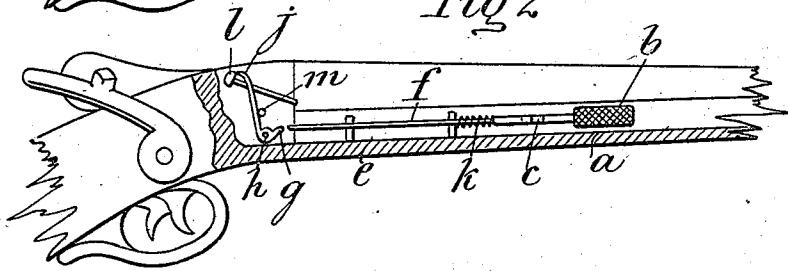


Fig 3

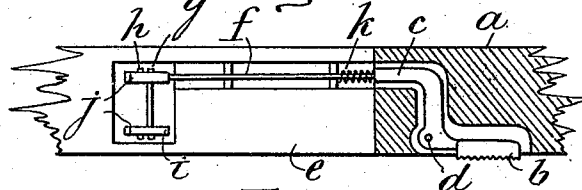


Fig 5

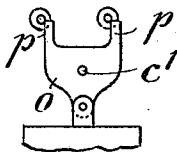


Fig 4

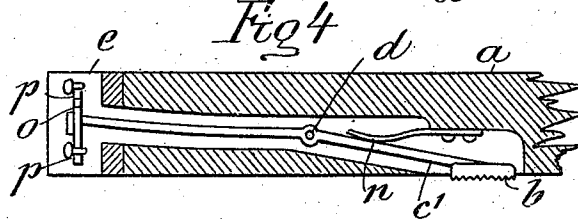
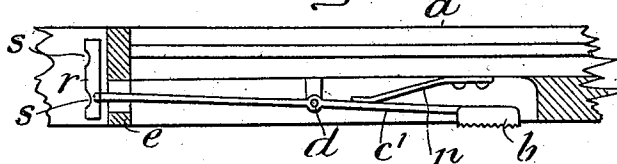


Fig 6



Witnesses

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SAFETY DEVICE FOR FIREARMS.

No. 849,387.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CARL HENNING HANSEN, merchant, a subject of Denmark, residing at No. 41' Hellerupvej, in Hellerup, near Copenhagen, Denmark, have invented new and useful Improvements in or Relating to Safety Devices for Firearms, of which the following is a specification.

There have already been a number of devices employed to prevent the cocked mechanism of a rifle, gun, or the like from prematurely acting on the firing-pin when, for instance, the shooter moves or by an involuntary pressure on the trigger frees the hammer. These devices, which are usually arranged on the rear of the stock, all necessitate the performance by the shooter of the action of changing the safety mechanism at the moment when the firearm is required for use, requiring, therefore, an effort of thought at the moment when his whole attention is directed to the mark at which he is aiming. The frequent result is that he forgets to effect the necessary change in the safety mechanism, and the favorable opportunity for a shot is lost. In consequence of this the majority of shooters prefer to dispense with such safety devices altogether.

The present invention relates to a safety device which the shooter involuntarily operates without any effort of thought as soon as the firearm is brought to the position for discharge, the member for shifting the safety device being fitted on the fore-end of the stock at that part where the shooter is compelled to have his foremost hand in order to be able to direct and steady the weapon, and the pressure with which the hand grips that particular portion of the firearm is rendered available for shifting the safety device.

Several constructional forms of the invention are shown diagrammatically in the accompanying drawings, in which—

Figure 1 is a side view of a part of a double-barreled sporting-gun, showing the location of the presser-plate. Fig. 2 is the same view, partly in section, showing the inner parts of the device. Fig. 3 is a sectional plan of the same constructional form. Fig. 4 is a sectional plan of a modified form of construction. Fig. 5 shows a detail of Fig. 4, and Fig. 6 is a sectional plan of a third form of construction.

A recess for the reception of a bell-crank lever is provided in the fore-end of the stock

a. This lever is pivoted on a pin *d*, Fig. 3, and one arm terminates in a roughened presser-plate *b*, which is situated nearly flush with the surface of the fore-end of the stock at the point where the foremost hand grips the weapon when it is about to be fired. The other arm *c* of the lever will then be in its most retracted position. In the rear portion *e* of the stock, which carries the pivot of the barrels, a recess is formed for a sliding rod *f*, which is suitably retained and guided in this recess. One end of this rod is situated directly in line with the end of the lever *c* and is adapted to be displaced by the movement thereof, while a helical spring *k*, secured to the front end of the rod by a screw, keeps the rod *f* in pressure contact with the end of the lever-arm *c*. The other end of the rod *f* makes contact with the short arm *g* of a bell-crank lever which is rigidly secured to one end of a spindle *h*, the other end of the spindle carrying a corresponding bell-crank lever *i*. The long arms of each of these bell-crank levers terminate in a nose *j*, each of which respectively normally engages beneath the head of one of the two plungers or firing-pins *l*, a stop-pin *m* being provided to suitably limit the forward movement of this arm of the levers.

The various parts being in the position shown in the drawings a blow of the hammers on the firing-pins would not effect the discharge of the cartridges, as the firing-pins cannot be depressed, owing to the noses *j*, as these engage beneath the heads of the pins. On the other hand, when the weapon is raised into the discharge position the pressure of the fingers of the foremost hand against the presser-plate *b* will have the effect of moving the lever *c*, thereby displacing the rod *f* against the pressure of the spring *k*, whereby the spindle of the bell-crank levers *g* and *i* will be moved, and the noses *j* are displaced from the situation beneath the heads of the firing-pins or are so shifted that the noses are situated in register with notches in the heads of the firing-pins. On the descent of the hammer the firing-pin will then be able to move unhindered and the shot fired without the shooter having to think for a moment about freeing the safety device. As soon as the foremost hand is removed or does not grip the fore-end of the stock tightly the spring *k* will again bring the noses *j* beneath the heads of the firing-pin

and will move the presser-plate *b* outward into the normal position in which it is flush with the outer surface of the fore-end of the stock.

5 In the form of construction shown in Fig. 4 the bell-crank lever is replaced by an ordinary two-armed lever *c'*, which is pivoted on a pin *d* and of which one arm terminates in a press-plate *b*, corresponding exactly to that
10 above described. The free end of a flat spring *n*, mounted in the fore-end *a* of the stock, presses against the free end of the lever *c'*, the other arm of the lever being connected to a plate *o*, Fig. 5, pivoted in *e*.
15 This plate is provided with two fingers *p*, each of which engages beneath the head of its respective firing-pin in a manner similar to that of the above-described noses *j* when the lever *c'* is under the influence of the
20 spring *n* only. In such positions the pins cannot be struck downward if they are unintentionally subjected to the action of the hammers; but if the weapon is raised into the discharge position the pressure of the
25 hand against the presser-plate *b* will cause the lever *c'* to shift the plate *o* laterally, whereby the arms *p* will be moved away from the firing-pins and free the same.

The form of construction shown in Fig. 6
30 differs only from that above described in the lever *c'* being connected to a rod *r*, which engages the heads of the firing-pin when no pressure is exerted on the presser-plate *b*. As soon as the latter is actuated the rod *r*
35 will be shifted laterally, so that the notches *s* in the rod *r* come into alinement with the firing-pin, permitting the latter to move freely.

In firearms where the firing-pin moves in a
40 loose breech-piece the detaining device can be fitted between the breech-piece and the rear end of the cartridge and employed in a manner similar to that above described, so that, for example, when the firearm is in
45 the discharge position and the presser is actuated a notch in the safety member is moved in front of the firing-pin.

It is obvious that many variations of the

invention can be made without departing
from the principle thereof.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a firearm, the combination with the
55 firing-pin, of a safety device normally locking the firing-pin and having an exposed part located on the fore-end of the stock of the firearm, said exposed part being movable at
60 an angle to the longitudinal axis of the barrel to release the firing-pin.

2. In a firearm, the combination with the firing-pin, of a safety device normally locking the firing-pin and provided with a press-plate
65 normally flush with the outer surface of the firearm and arranged at the point usually grasped by the foremost hand of the operator when the firearm is discharged.

3. In a firearm, the combination with the firing-pin, of a safety device normally locking
70 the firing-pin and provided with a press-plate normally flush with the outer surface of the firearm and arranged at the point usually grasped by the foremost hand of the operator when the firearm is discharged; said plate
75 being movable inwardly to release the firing-pin.

4. In a firearm, the combination with the firing-pin, of a safety device normally locking
80 the firing-pin and provided with a press-plate normally flush with the outer surface of the firearm and arranged at the point usually grasped by the foremost hand of the operator when the firearm is discharged; said plate
85 being movable inwardly to disengage the safety device from the firing-pin, and means for returning the safety device to its normal position.

In testimony whereof I have signed my name to this specification in the presence of
90 two subscribing witnesses.

CARL HENNING HANSEN.

Witnesses:

MAGNUS JENSEN,
F. P. HARAEDTROT.