Apr. 10, 1923. 1,450,976

E. LARSON

SAFETY DEVICE FOR PORTABLE FIREARMS

Filed Feb. 10, 1921

Fig. 1.

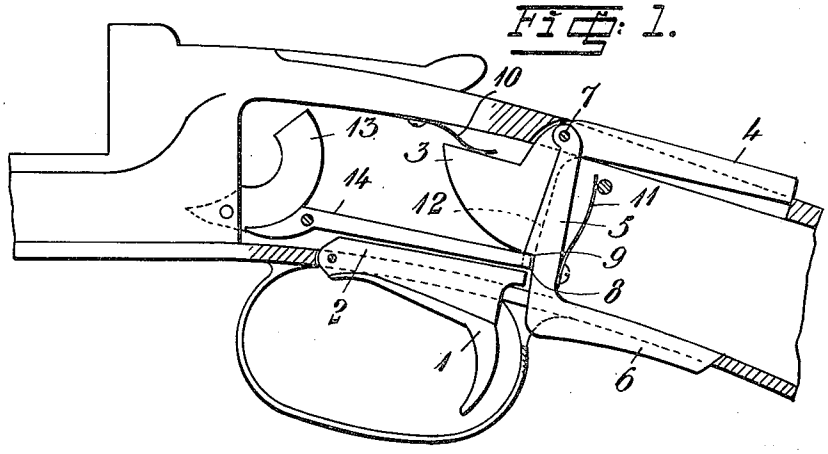


Fig. 2.

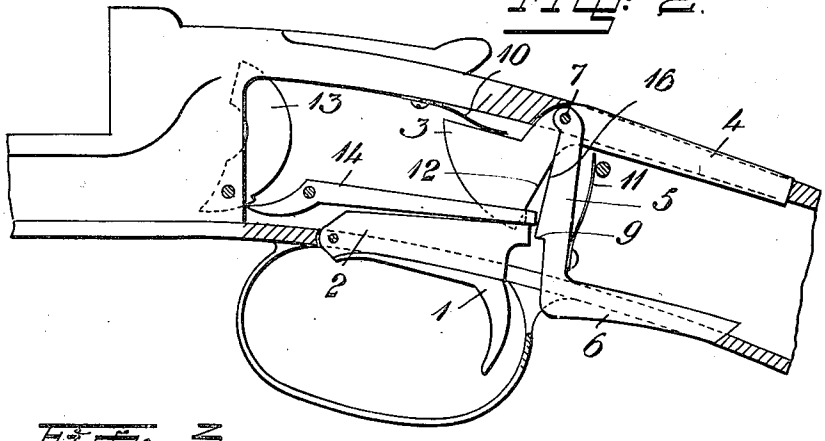
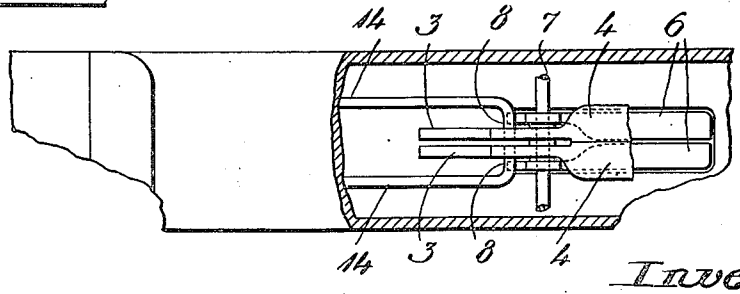


Fig. 3.



Inventor

E. Larson,

By Marks & Clark

Attys.

Patented Apr. 10, 1923. 1,450,9

UNITED STATES PATENT OFFICE.

EDWARD LARSON, OF LERDALA, SWEDEN.

SAFETY DEVICE FOR PORTABLE FIREARMS.

Application filed February 10, 1921. Serial No. 443,989.

To all whom it may concern:

Be it known that I, EDWARD LARSON, a subject of the King of Sweden, residing at Lerdala, Sweden, have invented certain new and useful Improvement in Safety Devices for Portable Firearms, of which the following is a specification.

The present invention relates to safety devices for portable fire-arms of the kind in which members that normally lock the trigger, that is to say prevent the discharging movement thereof, are automatically released on seizing the handle of the stock at firing.

To make a safety device satisfactory from every point of view, it has to be simple so as not to get out of order, and it must not be rendered unserviceable through wear and tear, but on the contrary it should always be fit for action as long as the gun is capable of use in other respects, and further it must be so devised that the hammer cannot be released by a shock to the gun, or by defects occurring in the sear spring thereof.

In my opinion the safety devices of this kind as heretofore known do not comply with these requirements, which on the other hands are in every respect met by the device forming the object of the present invention.

Moreover, by the invention the exceedingly important advantage is attained in guns with invisible hammers, that it may be seen at once from the position of the locking members if the hammer or the hammers are cocked, that is to say, if the shots have been fired.

Thus a gun with invisible hammers provided with a safety device according to the present invention has the advantage of a gun with visible hammers, in that it can be seen at once whether a hammer is cocked or not, simultaneously as the disadvantage inherent in guns with visible hammers consisting in the hammers being easily acted upon by boughs and the like, is avoided. Furthermore, the advantage is attained, that the marksman, on having once charged the gun, can always see which shot has been discharged and which has not. This, certainly, is not possible in guns with visible hammers, without the gun being opened.

An embodiment of the invention is illustrated in the accompanying drawing.

Fig. 1 shows the device in elevation, the parts assuming the positions wherein hammer is under tension.

Fig. 2, likewise, is an elevation show the position of the parts after the discha

Fig. 3 is a plan view of the device.

1 designates the trigger which is pivo to the stud 2. The hammer is denoted by and the sear by 14. This sear cooper with two locking members which are forr like levers, viz. an upper one 3, 4 an lower one 5, 6, the said levers being pi ally mounted on the same stud 7 in the ing of the gun lock. The lever 3, 4 is in form of a double-armed bell crank lever, outer arm 4 thereof projecting throug slot in the top of the handle of the st when the lever is in its locking posit (Fig. 1), whereas the other arm 3 of lever engages with its arch-shaped end face 16 over the lateral abutment 8 at rear end of the sear 14. The lever 5, also shaped like a bell crank lever and ject s with its one arm 6 through a slot the bottom of the handle of the stock, w the inner arm 5 of the lever engages wit nose 9 over the abutment 8 at the rear of the sear 14. The lever 3, 4 is actuated the spring 10, and the lever 5, 6 by the spr 11. These springs have a tendency to br the said levers into locking position.

The sear is so arranged that the rear thereof assumes a lower position (Fig. when the hammer is cocked, and a hig position when the hammer is uncocked.

The action of the device is as follows:

Referring to Fig. 1, which shows the p tion of the parts when the hammer cocked, both levers 3, 4 and 5, 6 are actua when seizing the handle of the stock firing, in that their outer arms 4 and 6 spectively are pressed inwardly through pressure of the hand thereagainst. inner arm 3 of the upper lever is then sw forward, so that the abutment 8 of the looses the support of the curved end surf 16 of the said arm, and the lower leve swung rearward, so that the nose 9 the is brought out of engagement with the a ment 8.

Thus the sear is no longer locked by levers, but the shot may be discharged pulling the trigger in known manner.

On the hammer being uncocked at the charge of the shot the rear end of the s is brought upwards, the abutment 8 of

then coming in contact with the rear
12 of the arm 3, and also in contact
the part 16 of the fore edge of the
5 above the nose 9. Thus the two levers
retained in the position into which they
brought on the release, and in which
outer arms are pressed into the stock,
hat it may be seen at once that the ham-
is uncocked and the shot discharged.
recocking the hammer the sear is
ght back again to its lower position, and
locking members (the levers) again as-
e the locking position under the action
heir springs, the said members in this
tion indicating that the hammer is
ed. The upper lever must be shaped
arranged so that the two arms thereof
approximately of the same weight.
double-barrel guns which, as is known,
e the widest use, there is arranged for
hammer and sear pertaining thereto,
upper as well as a lower locking sear,
is to say four levers in all. The two
ermost levers are arranged side by side
acent to each other, and, likewise, the
lowermost levers are arranged in the
ner indicated in Fig. 3.

What I claim as new and desire to secure Letters Patent of the United States is:—

. A safety device for guns, including a me, a hammer, means for holding the nmer in the cocking position, a trigger, members for locking said trigger inde-dently of each other, said locking mem-s each having a part projecting outside the handle of the stock so that the lock-members are released on seizing the ck at firing, and means for causing said king members to be locked automatically the released position after the discharge.

. A safety device for guns including a me, a hammer, a sear, a member locking sear, means for releasing said locking mber on seizing the stock at firing, and ans for causing said locking member to locked after the discharge automatically the released position, and means for re-ning the locking member automatically the locking position on recocking the nmer.

. A safety device for guns, including a me, a hammer, means for holding the nmer in the cocking position, means for easing the hammer, means for locking d releasing means, said locking means ving a part projecting outside of the han-of the stock so that the locking means released on seizing the stock at firing, d means for causing said locking means be locked automatically in the released sition after the discharge, and means for urning the locking means automatically the locking position on recocking the mmer.

4. A safety device for guns, including a frame, a hammer, means for holding the hammer in the cocking position, means for releasing the hammer, means for locking said releasing means, said locking means having a part projecting outside of the handle of the stock so that the locking means are released on seizing the stock at firing, and means for causing said locking means to be locked automatically in the released position after the discharge, said locking means consisting of two members, locking one and the same sear independently of each other, the one member projecting outside the upper surface of the stock in the locking position, while the other locking member projects outside the lower surface of the stock.

5. A safety device for guns, including a frame, a hammer, a sear, assuming a lower position, when the hammer is cocked and a higher position when the hammer is uncocked, a member locking said sear in the lower position, means for releasing said locking member automatically on seizing the stock at firing and means for causing the sear to lock said locking member automatically in the released position after the discharge, and means for returning the locking member automatically to the locking position on recocking the hammer.

6. A safety device for guns, including a frame, a hammer, a sear, a member locking said sear, means for releasing said locking member on seizing the stock at firing, and means for causing said locking member to be locked automatically in the released position after the discharge, said locking member consisting of a pivotally mounted bell crank member the one arm of which projects outside the handle of the stock, while the other arm of the lever cooperates with the sear.

7. A safety device for guns, including a frame, a hammer, a sear, a member locking said sear, means for releasing said locking member on seizing the stock at firing, said locking member consisting of a pivotally mounted bell crank member, the outer arm of which projects outside the upper surface of the handle of the stock, while the inner arm in the locking position of the member grasps over a projection on the sear, which projection, when the sear and the locking member are released holds the latter in the released position.

8. A safety device for guns, including a frame, a hammer, a sear, a member locking said sear, means for releasing said locking member on seizing the stock at firing, said locking member consisting of a pivotally mounted bell crank lever, the outer end of which projects outside the lower surface of the handle of the stock, while the inner arm by means of a nose grasps over a projection on the sear, said projection in the released

position of the sear and the said locking member holding this latter in the released position.

9. A safety device for guns, including a frame, a hammer, means for holding the hammer in the cocking position, means for releasing the hammer, means for locking said releasing means, said locking means having a part projecting outside of the handle of the stock so that the locking means are released on seizing the stock at firing, and means for causing said locking means to be locked automatically in the released position after the discharge, said locking means consisting of two locking members pivotally mounted on the same stud.

10. A safety device for double barrel guns, including a frame, a hammer, means for holding the hammer in the cocking position, means for releasing the hammer, means for locking said releasing means, said locking means having a part projecting outside of the handle of the stock so that the locking means are released on seizing the stock at firing, and means for causing said locking means to be locked automatically in the released position after the discharge, said locking means consisting of two sets of locking members, a set for each of the guns, each set consisting of an upper and a lower member projecting respectively outside the upper surface and the lower surface of the stock.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD LARSON.

Witnesses:
INEZ SWENSON,
STINER LARSON.