No. 609,169. Patented Aug. 16, 1898.

# H. E. SCHLEGELMILCH.

## GUN LOCK.

(Application filed June 8, 1897.)

(No Model.)

Fig. 1a.

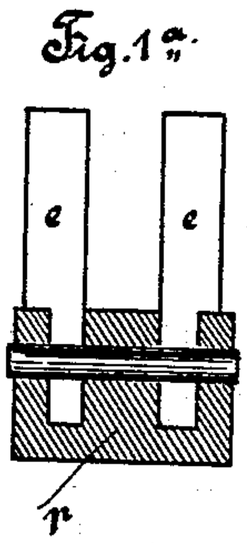



Fig. 1.

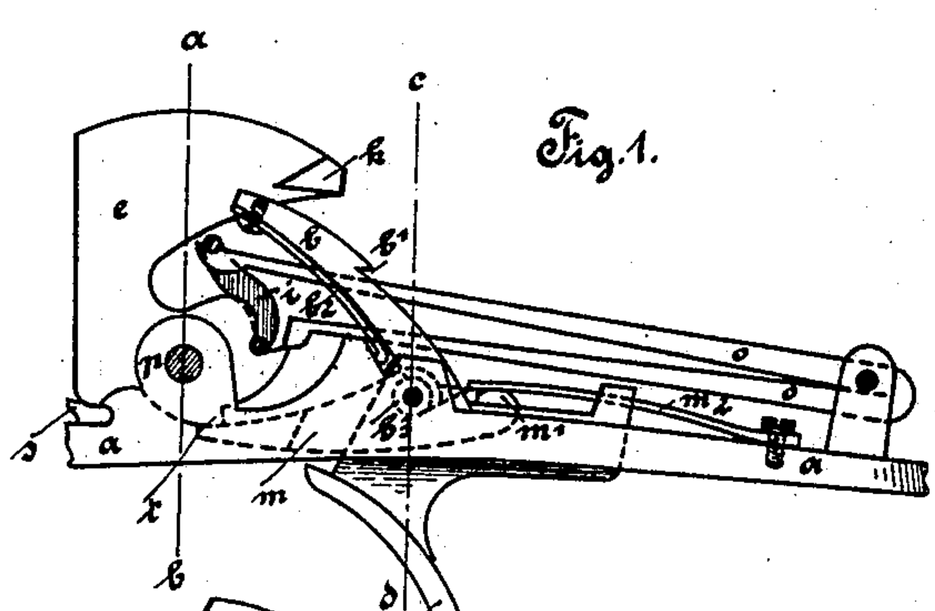



Fig. 1b.

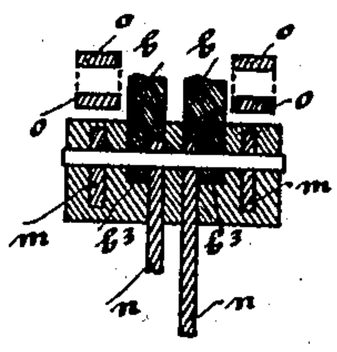



Fig. 2.

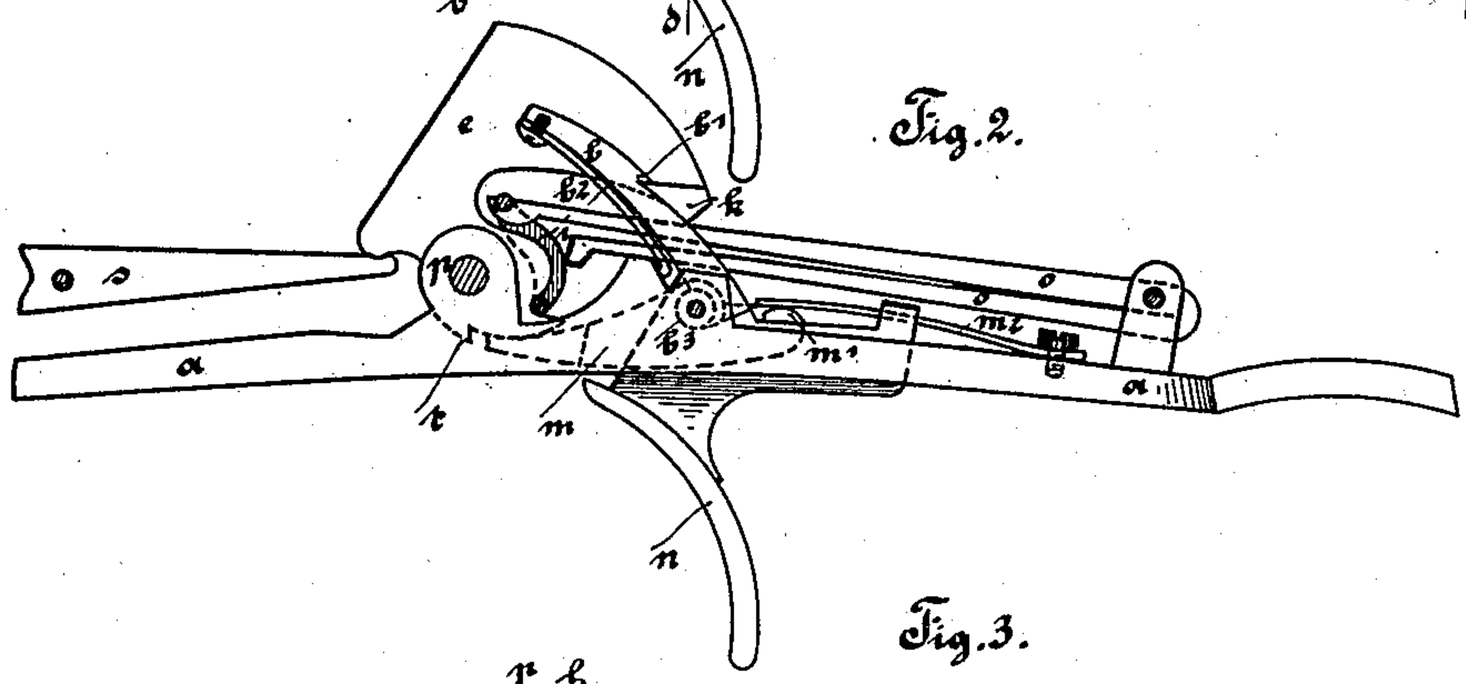



Fig. 3.

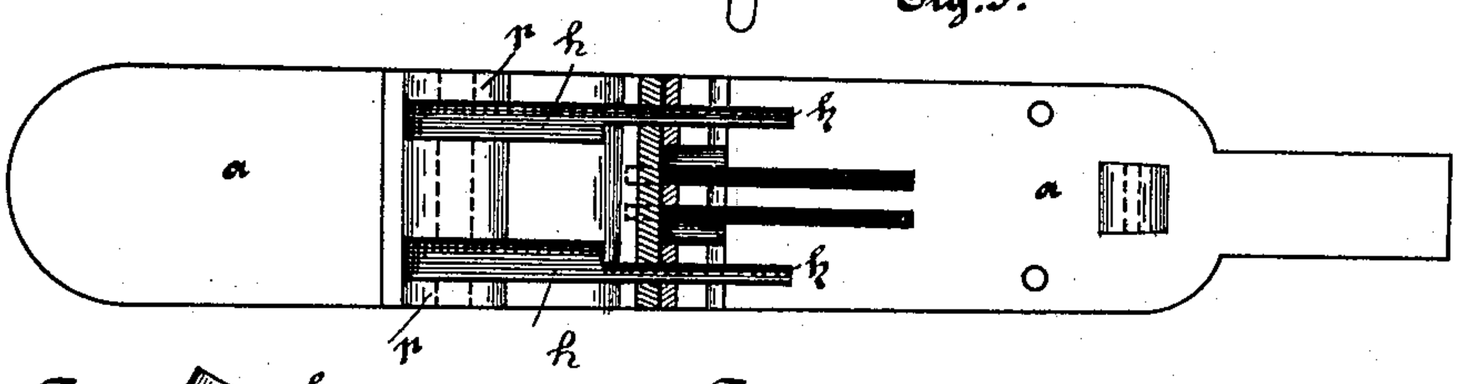



Fig. 5.

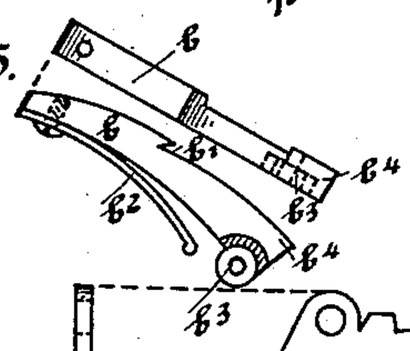



Fig. 4.

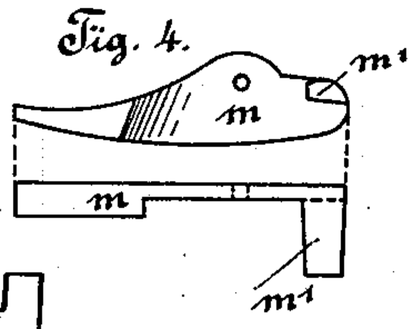
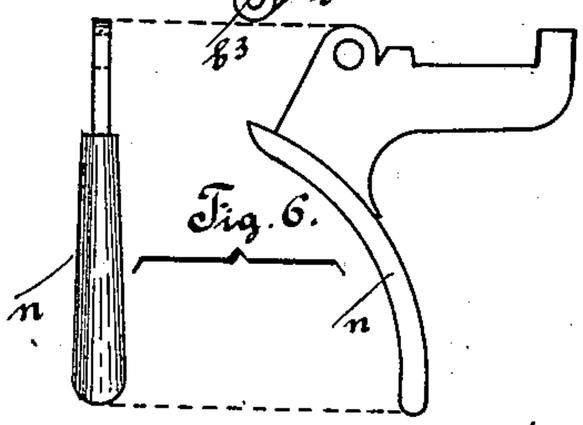



Fig. 6.



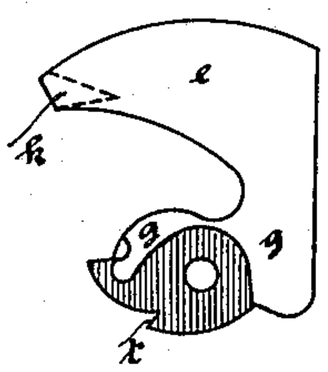




Fig. 7.

Witnesses:

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# UNITED STATES PATENT OFFICE.

HEINRICH ERNST SCHLEGELMILCH, OF SUHL, GERMANY.

## GUN-LOCK.

SPECIFICATION forming part of Letters Patent No. 609,169, dated August 16, 1898.

Application filed June 8, 1897. Serial No. 639,891. (No model.)

*To all whom it may concern:*

Be it known that I, HEINRICH ERNST SCHLEGELMILCH, a subject of the King of Prussia, Emperor of Germany, residing at Suhl, in the Kingdom of Prussia, German Empire, have invented certain new and useful Improvements in Gun-Locks, of which the following is a full, clear, and exact specification.

This invention relates to gun-locks arranged on the trigger-plate; and it consists of the arrangement of a second sear, catching the hammer if from any cause the first catch involuntarily releases the hammer.

The purpose of the new lock is, further, to provide a simple and reliable construction and one in which the lock-frame is not weakened by the parts of the lock being journaled in it. Besides, the lock has an easy discharge and a safe guide for all its parts against displacement, and it has also a great percussive power. The component parts are, moreover, easily repaired and replaced.

The accompanying drawings show the new gun-lock, as follows:

Figure 1 is a side elevation of a lock in which the hammer *e* is engaged by two sears *b* and *m*, both sears being adjusted on the pivot of the trigger and movable in the direction of the detent. The lock illustrated is not cocked. Fig. $1^a$ is a sectional view on line *a b*, Fig. 1, and Fig. $1^b$ is a sectional view on line *c d* of Fig. 1. Fig. 2 is a similar view with the lock cocked. The cocking is here performed by the lever *s*, which is operated by uncoupling the barrels, as generally known and in use. Fig. 3 is a plan view of the trigger-plate *a*, arranged for a double lock. Fig. 4 is a detail view of sear *m* with its lug *m'*. Fig. 5 shows details of the first sear *b*, with an eye over which the trigger-plate is pushed in order to give the sear a long guide on the axle. Fig. 6 is the trigger. Fig. 7 is the hammer, with a reinforcement for its guidance.

The trigger-plate *a*, Fig. 3, consists of a suitably-shaped plate having slots *h* for the triggers *n* reaching through it. These slots have a short local widening for receiving the sear *b*. (The latter is shown detached in Fig. 5.) The hammers *e* are journaled in the wider part of the slots *h h*, while the sears *m* are located in the narrower rear end of said slots *h*. The trigger-plate is further provided with the necessary pintles and screws.

The hammer *e*, Fig. 7, has around its hub a reinforcement *g*, which gives it a better guide through the eye of the trigger-plate. It has, moreover, the tooth *k* for engaging the first sear and the notch *t* for the engagement of the second sear *m*. The hammer *e* is actuated by the mainspring *o* either direct or through the link *i*. The mainspring *o* is represented in Figs. 1 and 2 as a two-legged one.

The first sear *b* in Fig. 5 is mounted in the gun arrangement illustrated in Figs. 1 and 2 on the same pintle as the trigger. It is actuated by the spring $b^2$ and has on its rear edge a notch *b'*. At its foot or hub is a sleeve $b^3$, over which the trigger is pushed. The sear can be turned forward, but not backward, as it lies with its shoulder $b^4$ against the trigger. Consequently it joins in the movement of the trigger. The second sear *m* is actuated by the spring $m^2$, and its lug *m'* rests over and is engaged by the trigger *n*.

The mode of operation of the lock is the following: The hammer *e* is drawn back by some suitable device, either by the locking-lever when the gun-lock is opened or, as indicated here, by a special cocking-lever *s*, which is actuated by the barrels being uncoupled, as generally known and in use. At the close of the backward movement of the hammer *e* the tooth *k* thereof engages with the notch *b'* of the auxiliary sear *b*, while the notch *t* has passed over the top of the second sear *m* and stands in front of it with a small space between, Fig. 2. The mainspring is bent, and the lock is ready for discharge. As soon as the trigger *n* is pulled the sear *m* is so turned by its lug *m'* and the sear *b* through its engagement at $b^4$ that the top of the sear *m* and the notch *b'* give way to the hammer and the mainspring can come into action, which causes the hammer to fall. The parts of the lock then resume their initial position, as in Fig. 1. Now if, the gun being cocked, Fig. 2, the sear *b* should from any other cause than a pull on the trigger be released the mainspring *o* would force down the hammer, which is prevented, however, by the second sear *m*, which engages firmly with the notch *t* until released by the trigger, thereby keeping the hammer *e* back.

This lock construction can be applied to guns with one or more barrels with inside or outside hammers, and the same idea is capable of multiform execution. It is not necessary that the trigger and sear turn on the same axle. Each part may also have its own axle. The cocking can be effected also by means of the locking-lever. The hub of the hammer through the eye *p* can be dropped, and, finally, the first sear can be made of one piece with the trigger.

I claim—

1. In combination in a gun-lock the hammer, the trigger and the two sears *b* and *m* operating upon the hammer, said sears being arranged on the same pivot with the trigger, the said trigger having shoulders, and the said sears having the shoulder $b^4$ and the lug *m'* respectively to engage the shoulders in the trigger, substantially as described.

2. In combination in a gun-lock, the hammer, the trigger having a pivot-eye and the sear *b* arranged on the pivot of the trigger and having a sleeve which receives the trigger pivotally, the said eye of the trigger encircling the sear-sleeve, substantially as described.

3. In combination in a gun, the hammer having the tooth *k* at its upper end, and the tooth *t* near its pivot, the trigger, the sear *b*, pivoted on the same axis and extending up to engage the said tooth, said sear having also a shoulder $b^4$ to be engaged by a shoulder on the trigger near the pivot thereof, and the sear *m* also mounted on the pivot of the trigger and extending forwardly under the hammer to engage the tooth *t* thereof, said sear having a rear extension terminating in a lug *m'* to be engaged by the trigger, substantially as described.

4. In a gun-lock, the combination of two sears one of which is provided with sleeves, the trigger on one sleeve on one side of said sear and the second sear on the sleeve on the other side of the sear first mentioned, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

H. ERNST SCHLEGELMILCH.

Witnesses:
HENRY HASPER,
W. HAUPT.