C. G. SWEBILIUS & H. T. R. HANITZ.

FIREARM.

APPLICATION FILED APR. 2, 1915.

1,149,795. Patented Aug. 10, 1915.

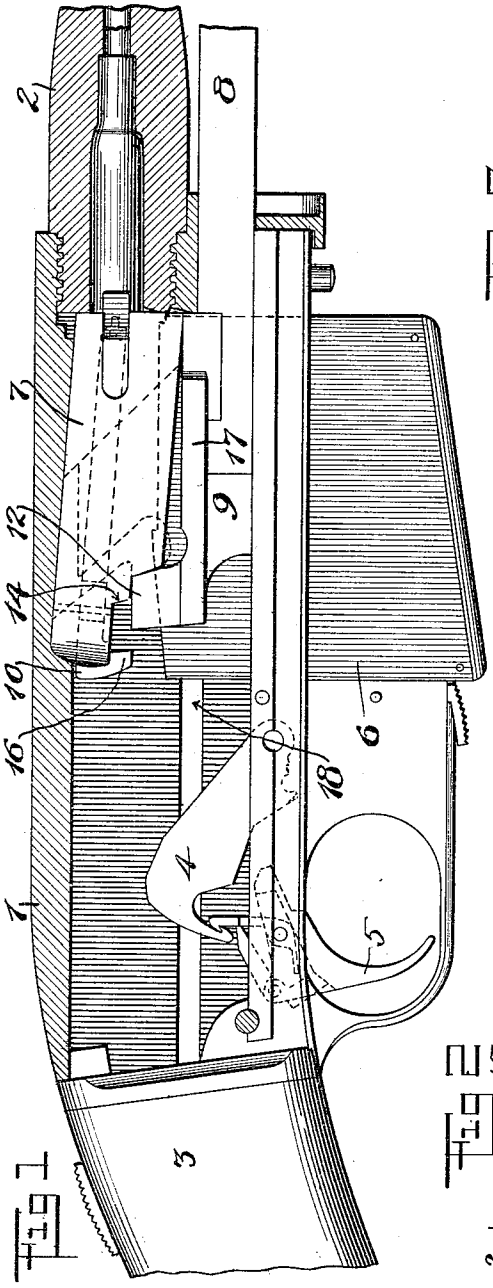


Fig. 1

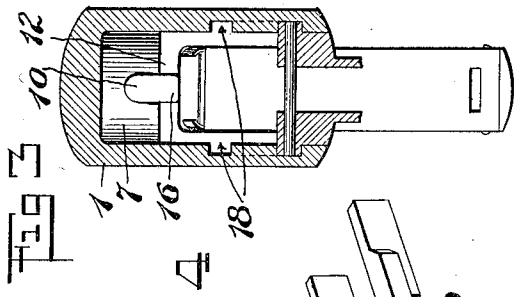


Fig. 3

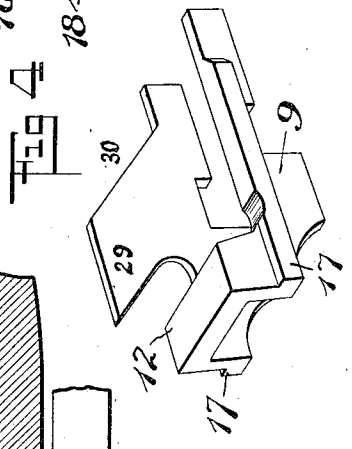


Fig. 4

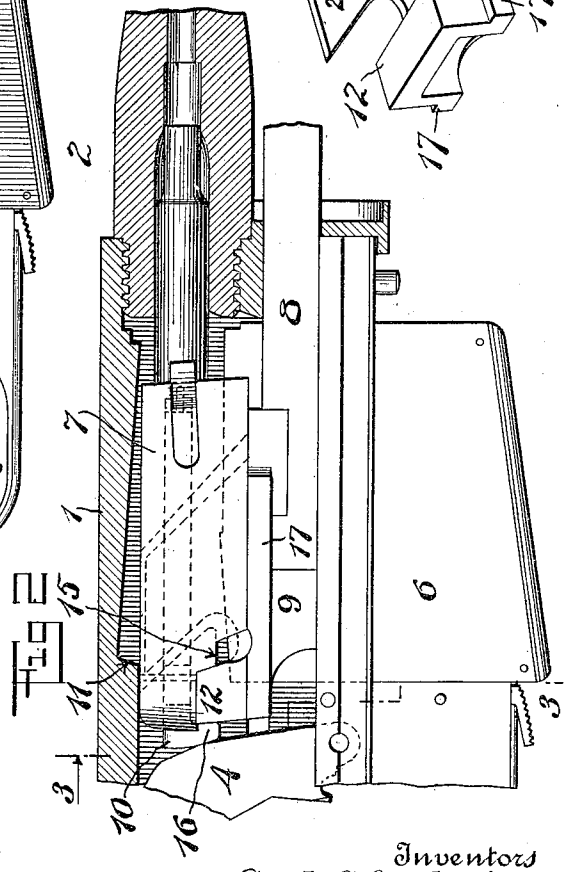


Fig. 2

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UNITED STATES PATENT OFFICE.

CARL GUSTAF SWEBILIUS AND HANS T. R. HANITZ, OF NEW HAVEN, CONNECTICUT, ASSIGNORS TO THE MARLIN FIREARMS COMPANY, OF NEW HAVEN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

FIREARM.

1,149,795. Specification of Letters Patent. **Patented Aug. 10, 1915.**

Application filed April 2, 1915. Serial No. 18,684.

To all whom it may concern:

Be it known that we, CARL G. SWEBILIUS and HANS T. R. HANITZ, a citizen of the United States and a subject of the Emperor of Germany, respectively, residing at New Haven, New Haven county, State of Connecticut, have invented certain new and useful Improvements in Firearms, of which the following is a full, clear, and exact description.

Our invention relates to repeating firearms, the object being to provide simple and effective means for guaranteeing the operation of the firing-pin, at the same time providing a safety means whereby the firing-pin cannot be driven forwardly so as to discharge the cartridge until the breech mechanism is fully closed and locked. These and other advantages will be apparent from a reading of the following description.

In the drawings,—Figure 1 is a side elevation partially in longitudinal section of the middle portion of a repeating firearm, the stock and barrel portions being somewhat broken away. Fig. 2 is a similar view but somewhat abbreviated showing the parts in a different position from that shown in Fig. 1. Fig. 3 is a cross-section of certain parts on the plane of the line 3—3 on Fig. 2. Fig. 4 is a perspective view of a detail.

We are illustrating herein our invention as applied to what is termed a gas operable repeating firearm, although the present invention is not limited thereto. For a detailed description of such parts as are not described in detail herein, reference may be made to our companion application, Serial No. 18,682 filed April 2nd, 1915.

1 represents a receiver portion of the firearm, 2 the barrel portion, 3 the stock portion, 4 the hammer, 5 the trigger, 6 the magazine, 7 the breech-block, 8 the reciprocating action-rod, 9 the cam-slide, 10 the firing-pin, and 11 the lock-up shoulder in the top wall of the receiver designed to hold the breech-block in its locked position when said breech-block is fully advanced and tilted up into the position shown in Fig. 1.

The breech-block 7 is designed to be reciprocated in the receiver 1, any suitable means being provided for that purpose, for example the reciprocating action-rod 8. In this particular construction the action-rod is connected at its rear end to what we have termed the cam-slide 9. This cam-slide lies underneath the breech-block 7 and has a limited degree of longitudinal movement relatively thereto at the proper time for the purpose of tilting the breech-block up into the position shown in Fig. 1 and also drawing it down from the position shown in Fig. 1 to the plane shown in Fig. 2, in which plane said breech-block may be shifted horizontally for the purpose of extracting and ejecting an empty shell and introducing a fresh loaded shell. The magazine 6 may be of the usual box type from which the cartridges are removed one by one so as to be fed into the chamber of the barrel. The rearward movement of the breech-block serves to cock the hammer 4, the hammer being shown as being pushed back in Fig. 2 of the drawings and being shown in its fully cocked position in Fig. 1. The cam-slide 9 co-acts with the breech-block in such a way that it will serve not only to reciprocate it but also to tilt it from the horizontal plane into the position shown in Fig. 1. At the rear end of the cam-slide 9 is an upward projection 12 having a rearwardly inclined front face which engages against a co-acting incline 14 on the breech-block when the breech-block is down in the horizontal plane in which it may be reciprocated, as shown in Fig. 2. Directly forward of this incline 14 is a horizontal step or shoulder 15 under which the projection 12 engages when the breech-block is tilted up, as shown in Fig. 1.

The rear upper end of the slide 9 is so designed that it will strike against a depending shoulder 16 on the firing-pin when the slide 9 is moved back from the position shown in Fig. 1 toward that shown in Fig. 2. This rearward movement of the slide 9 will retract the firing-pin and when the breech-block is let down into a horizontal plane it will hold said firing-pin retracted, as shown in Fig. 2, wherein the projection 12 is positively held by the breech block shoulders 14 against forward movement independently of said breech block, and serves, therefore, as a blocking device between the firing pin and said breech block so that the hammer cannot drive said firing-pin forwardly until the breech-block has again been moved to the locked up position shown in Fig. 1. Thus by this simple expedient we

provide means for positively retracting the firing-pin after a cartridge has been struck thereby and for positively holding it retracted until the gun is again ready for firing and safely locked up. The slide 9 in the particular form shown is cut away at its under side to provide clearance for the magazine and is guided in the receiver frame by ribs 17, 17 on opposite sides thereof designed to move in grooves 18, 18 in the inner side walls of the receiver.

To draw the breech block down from its locked position shown in Fig. 1, I may provide any suitable means, one means comprising the upwardly projecting horn 29 (Fig. 4) provided with the cam incline 30 which engages a shoulder on the side of the breech block adjacent thereto on the rearward movement of the slide 9, thus as the action rod 8 is being retracted, the slide 9 will positively draw down the breech block from the position shown in Fig. 1 to the plane shown in Fig. 2. A more detailed description of this operation will be found in our companion application referred to above.

We have shown our invention only in its preferred form, appreciating that various modifications may be made without departing from the spirit and scope thereof.

What we claim is:

1. In a repeating firearm, a movable breech-block, a firing-pin carried thereby and arranged to move to and fro, means for locking the breech-block in its advanced position, and means blocked by the breech block itself for holding the firing-pin in a relatively retracted position, until the breech-block is moved to its locked position, said means being movable independently of said breech block.

2. In a repeating firearm, a movable breech-block, a firing-pin carried thereby and arranged to move to and fro, means for locking the breech-block in its advanced position, and means blocked by the breech block itself for holding the firing-pin in a relatively retracted position, until the breech-block is moved to its locked position, said means being independent of said breech block, said means also operating to retract the firing pin.

3. In a repeating firearm, a movable breech-block, a firing-pin carried thereby and arranged to move to and fro, means for locking the breech-block in its advanced position, and means blocked by the breech block itself for holding the firing-pin in a relatively retracted position, until the breech-block is moved to its locked position, said means also operating to retract said firing pin incidental to the unlocking of the breech block, and said means being movable only in a longitudinal direction.

4. In a repeating firearm, a receiver, a breech-block arranged to be reciprocated therein, a lock-up shoulder in the receiver one end of said breech-block being arranged to be tilted to engage said lock-up shoulder, means for moving said breech-block to and fro and for tilting the same into its locked up position, a firing-pin carried by the breech-block and arranged to have relative movement to and fro, said breech-block operating means being movable rearwardly independently of said breech block to a limited extent and coacting with said firing-pin to retract the same relatively to the breech-block preparatory to the rearward reciprocation of the breech-block and held by said breech block in a position to in turn hold the firing pin retracted while the firearm is unlocked.

5. In a repeating firearm, a receiver, a breech-block arranged to be reciprocated therein, a lock-up shoulder in the receiver, one end of said breech-block being arranged to be tilted to engage said lock-up shoulder, means for moving said breech-block to and fro and for tilting the same into its locked up position, a firing-pin carried by the breech-block and arranged to have relative movement to and fro, said breech-block operating means being movable rearwardly independently of said breech block to a limited extent and coacting with said firing-pin to retract the same relatively to the breech-block preparatory to the rearward movement of the breech-block and a shoulder on said breech block coacting with said operating means to hold said firing-pin retracted while said breech-block stands in an unlocked position.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."