No. 663,669. Patented Dec. 11, 1900.

W. THOMPSON.

BREAKDOWN GUN.

(Application filed May 31, 1900

(No Model.)

Fig. 1.

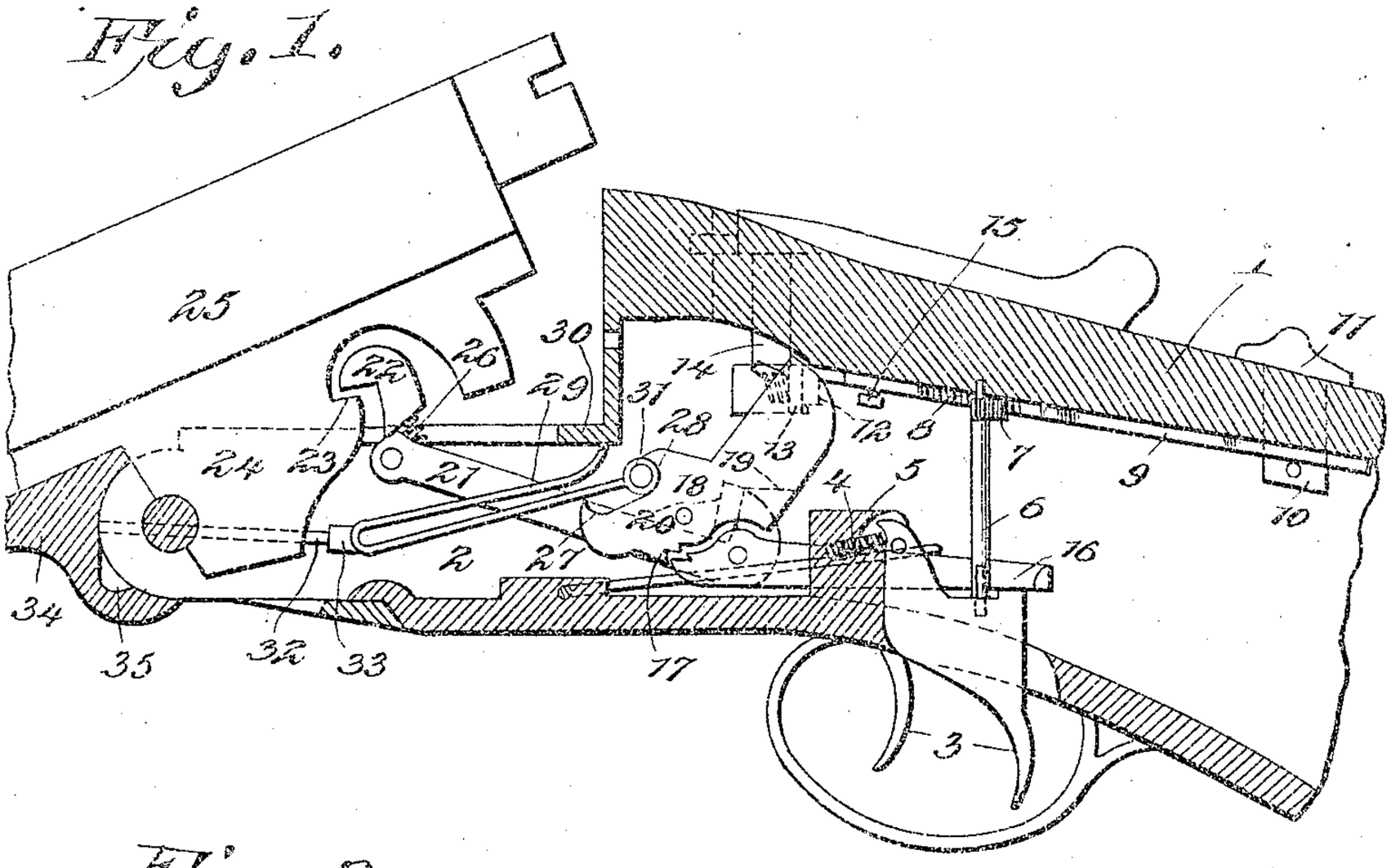


Fig. 2.

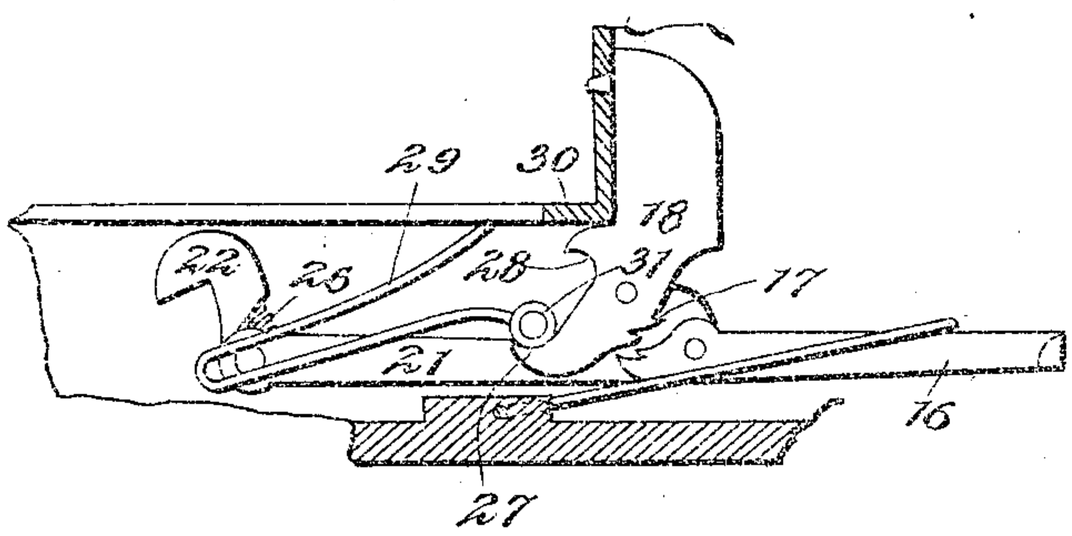
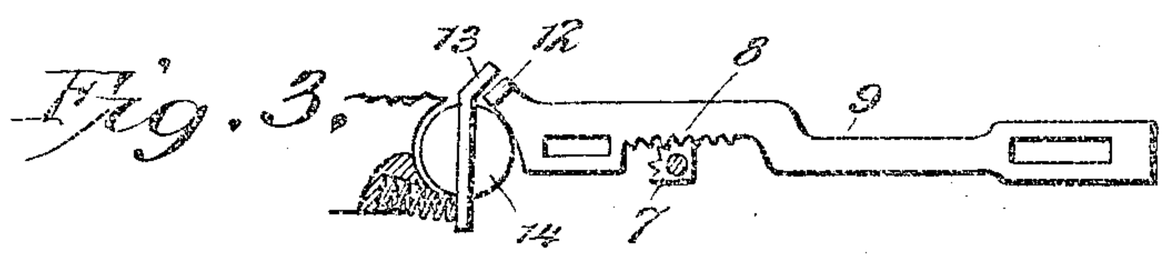


Fig. 3.



Witnesses
H. C. Lawson
L. M. Baumgardt.

Inventor
William Thompson
by Frank S. Appleman
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM THOMPSON, OF FREMONT, OHIO.

BREAKDOWN GUN.

SPECIFICATION forming part of Letters Patent No. 663,669, dated December 11, 1900.

Application filed May 31, 1900. Serial No. 18,522. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM THOMPSON, a citizen of the United States of America, residing at Fremont, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in Guns, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to guns, and particularly to breech-loading guns, in which the movement of the barrels is utilized for cocking the hammer, &c.

The objects of the invention are: First, to provide mainsprings slidable longitudinally of the locks and adapted to travel on the hammers in such manner that the pressure of the springs will be exerted more directly on the pivotal pins of the hammers when cocked rather than on the ends of the same; second, to provide a lever to take motion from the barrel and act, in conjunction with the sliding springs, for cocking the hammers; third, to provide novel means for manipulating the trigger safety device, said means acting in conjunction with mechanism for controlling the barrel-locking bolt, so that the bolt cannot be manipulated unless the trigger safety device is set to prevent movement of the trigger, and, fourth, to produce a gun-lock and mechanism in connection therewith which will prove durable, efficient, and satisfactory in use, and comparatively inexpensive to manufacture.

With the above and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and described.

In describing the invention in detail reference will be had to the accompanying drawings, forming part of the specification, wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 is a view of a fragment of a gun stock and barrel partly in longitudinal section; Fig. 2, a fragment of the lock, showing the position of the spring and hammer when released; and Fig. 3 is a plan view of the slide for operating the safety device.

In the drawings, 1 denotes a frame, and 2 the front extension thereof. The triggers 3 are of any preferred construction and have their upper edges engaged by springs 4, seated in a bridge-plate 5. The spindle of the safety device 6 has its ends reduced to form tenons which are rotatably mounted in the upper and lower tangs of the frame. The lower portion of the safety device is adapted to lie between the triggers out of engagement therewith, but is capable of being turned across and into engagement with the triggers through the agency of a segmental pinion 7, which is engaged by the toothed rack 8 on the sliding plate 9. The rear end of the plate 9 is slotted to receive the shank 10 of the thumb-piece 11. A lug 12 is formed at the front end of the slide and engages a shoulder 13 on the bolt 14, which latter controls the mechanism for releasing the barrels. The lug 12 engages the shoulder 13 of the bolt when the slide is pushed forward, and when the slide is in the forward position the locking device is out of engagement with the triggers. As the barrel-locking bolt is turned the slide is actuated to automatically throw the trigger-locking mechanism into engagement with the triggers. A slot 14 is formed in the slide for the reception of its guarding and retaining screw 15.

The sears 16 are suitably pivoted and provided with notched ends to engage sear-notches 17 of the hammers 18 for holding said hammers cocked. The rear ends of the sears 16 are engaged by the triggers, as fully shown, and when the trigger is pulled the sear 16 is thrown out of engagement with the hammer.

Each hammer 18 has a lug 19, which is engaged by a lug 20 on the end of a lever 21, said lever being pivoted between the hammers. The forward end of the lever 21 is provided with a dog 22, pivoted thereto, engaging a shoulder 23 of the lug 24, formed on the barrel 25. The dog is engaged by a spring 26, seated in the end of the lever 21 for retaining it in engagement with the lug. As the gun-barrels are swung down the lever 21 is elevated, and the movement thereof being communicated to the rear end of the lever the lugs thereof engage the lugs of the hammers and force the hammers back into cocked position. The front face of the hub of each

hammer has two rounded shoulders 27 28, connected by a slightly-curved surface forming a bearing for one end of the mainspring.

The mainspring 29 has one end bearing against a flange 30 of the frame and its opposite end provided with an antifriction-roller 31, which travels on the edge of the above bearing and engages the shoulders thereof.

Action-pins 32 are slidable in ways formed in the frame extension 2 and project from the front end thereof. The action-pins are provided with bearing-surfaces 33, adapted to engage the mainspring and impart thereto a sliding movement. As a result of such movement the roller 31 on the spring is forced from the shoulder 27 on the hammer into engagement with the shoulder 28 thereof, which is above the pivotal point of the hammer. Such movement aids in cocking the hammers, and by reason of the changed position of the spring the pressure exerted is practically in line with the pivotal pin of the hammers. When the triggers are pulled, the roller travels down the curved surface with increasing leverage and efficiency. The action-pin is operated through the medium of cam-recesses formed in the end 34. The cam-recesses terminate in channels 35 in order that the action-pins may have free movement when the hammers are cocked and the barrels are locked.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a gun, a front extension, an action-pin slidable in the front extension, a mainspring having its loop bearing against the action-pin, a hammer having two shoulders connected by a curved surface, a roller on the end of the mainspring engaging the shoulder near the pivot of the hammer when said hammer is cocked and so arranged as to travel over the curved surface with increasing leverage, a lug on the side of the hammer, said hammer having notches, sears having notches adapted to engage the notches of the hammer, a cocking-lever, a lug on the rear end thereof for engaging the lug of the hammer, a barrel, a lug thereon having a shoulder and a dog pivoted on the cocking-lever adapted to engage the lug on the barrel, substantially as described.

2. In a gun, a frame, a front extension, suitable triggers having their upper edges engaged by a spring, a spindle having its ends reduced to form tenons, said tenons being mounted in the frame between the triggers, a sliding plate, a toothed rack on the plate, and a segmental pinion near the upper edge of the spindle.

3. In a gun, a frame, a front extension, suitable triggers having their upper edges engaged by a spring, a spindle having its ends reduced to form spindles, said spindles being mounted in the frame between the triggers, a sliding plate, having a slot at one end, a thumb-piece on the frame, a shank depending from the thumb-piece and passing through a slot in the frame and adapted to enter the slot of the plate, a slot in the opposite end of the plate, a guarding and retaining screw adapted to pass through said slot and engage the frame, a toothed rack on the sliding plate, a segmental pinion near the top of the spindle, barrels, and means for releasing the barrels.

4. In a gun, a frame, a front extension, suitable triggers having their upper edges engaged by a spring, a spindle having its end reduced to form spindles, said spindles being mounted in the frame between the triggers, a sliding plate, having a slot at one end, a thumb-piece on the frame, a shank depending from the thumb-piece and passing through a slot in the frame and adapted to engage the slot of the plate, a slot in the opposite end of the plate, a guarding and retaining screw adapted to pass through said slot and engage the frame, a toothed rack on the sliding plate, a segmental pinion near the top of the spindle, barrels, a lug on the slide, a bolt and a shoulder on the bolt adapted to be engaged by the lug of the slide.

WILLIAM THOMPSON.

Witnesses:
D. B. LOVE,
A. E. CULBERT.