

No. 735,934.

PATENTED AUG. 11, 1903.

W. H. BEVANS.

BREECH LOADING ORDNANCE.

APPLICATION FILED JUNE 4, 1902. RENEWED JUNE 11, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

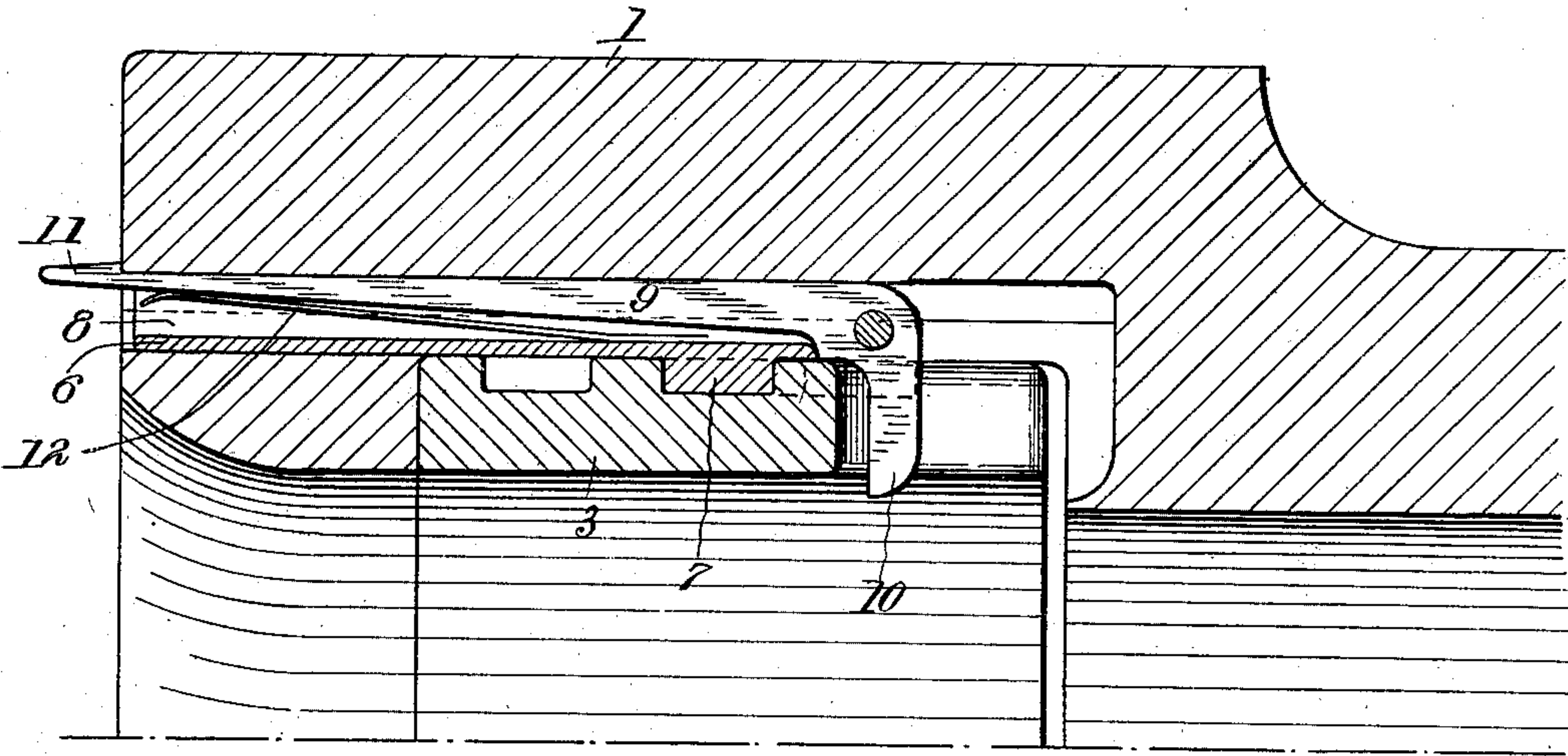
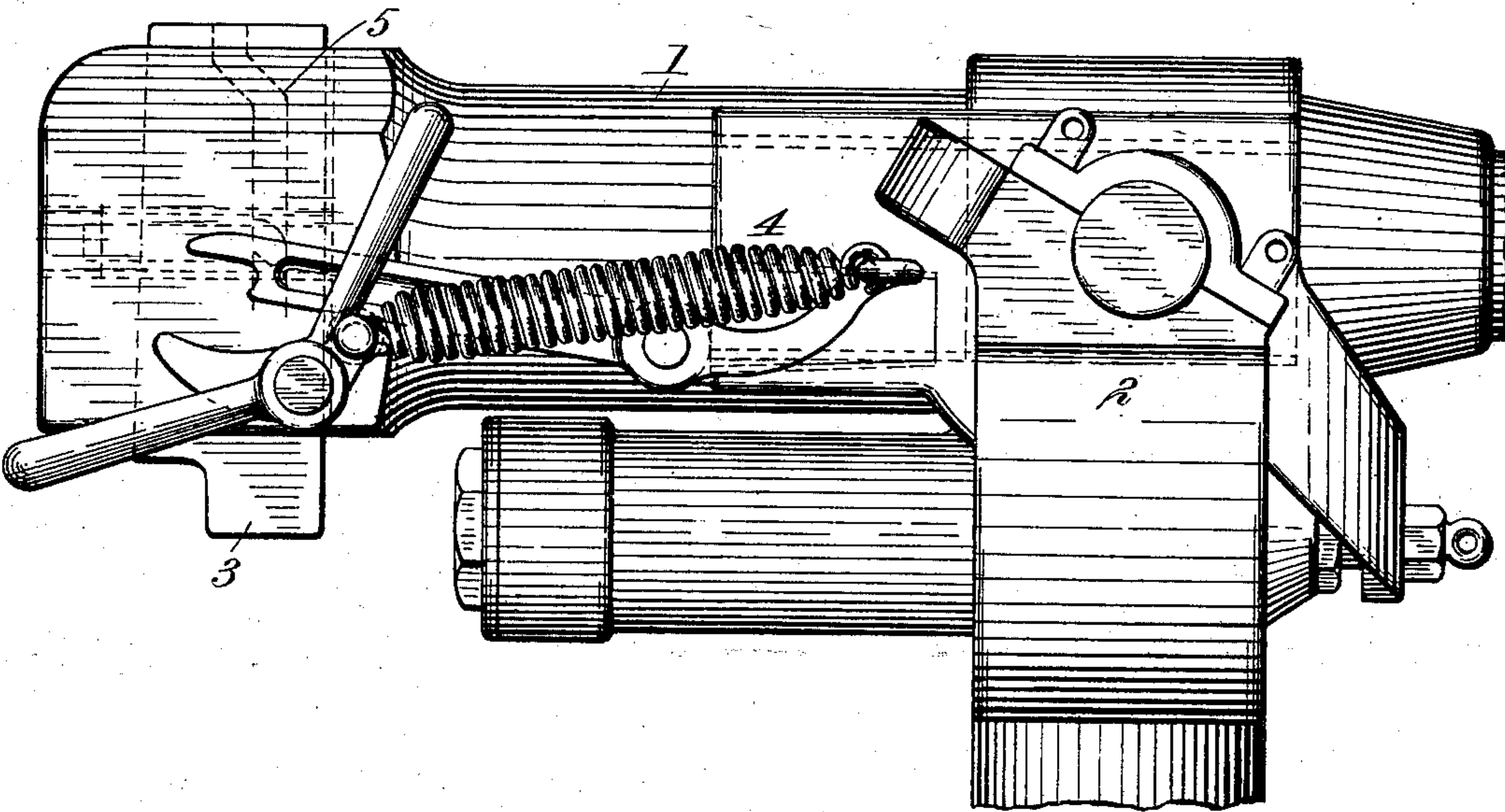


Fig. 2.



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Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

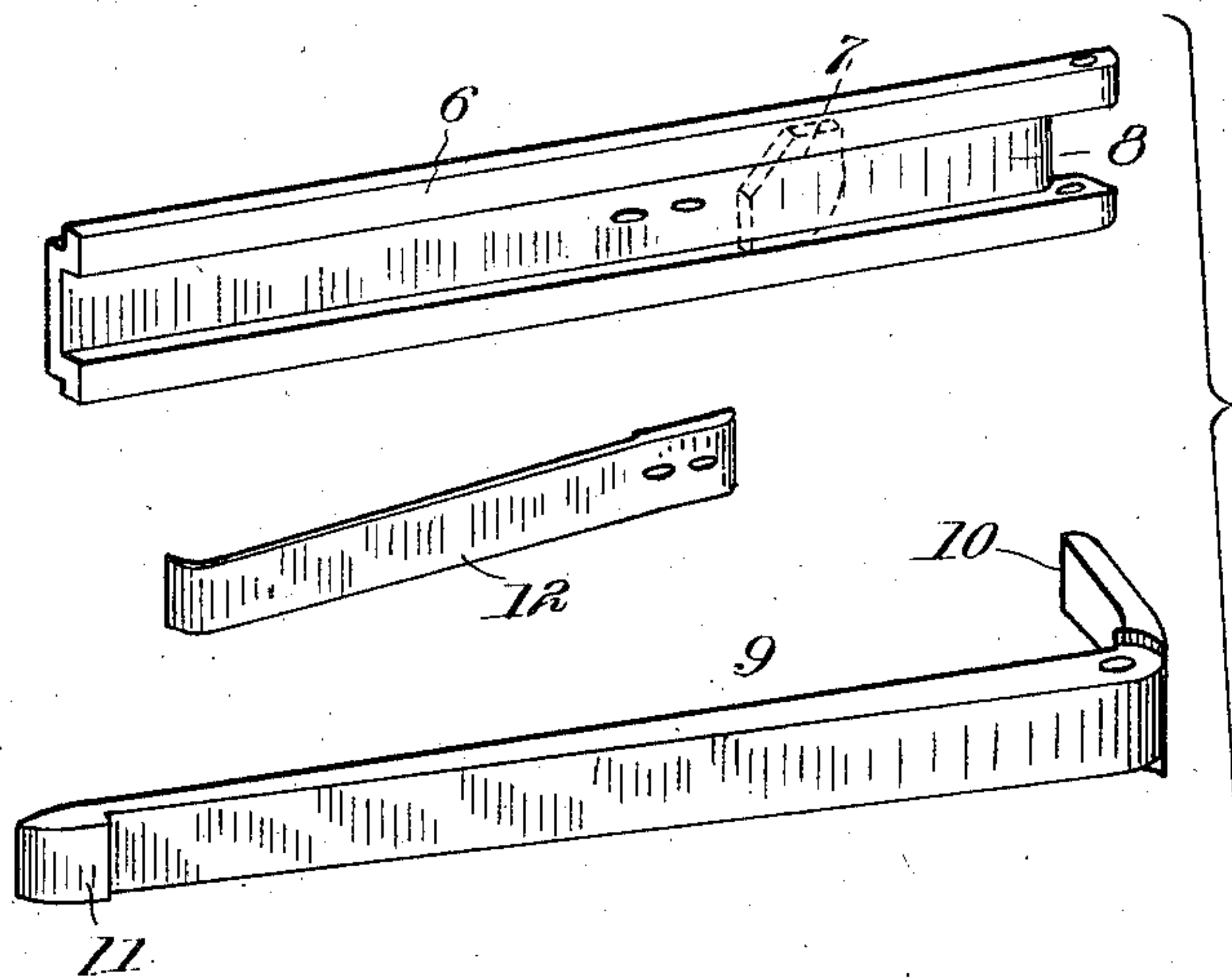
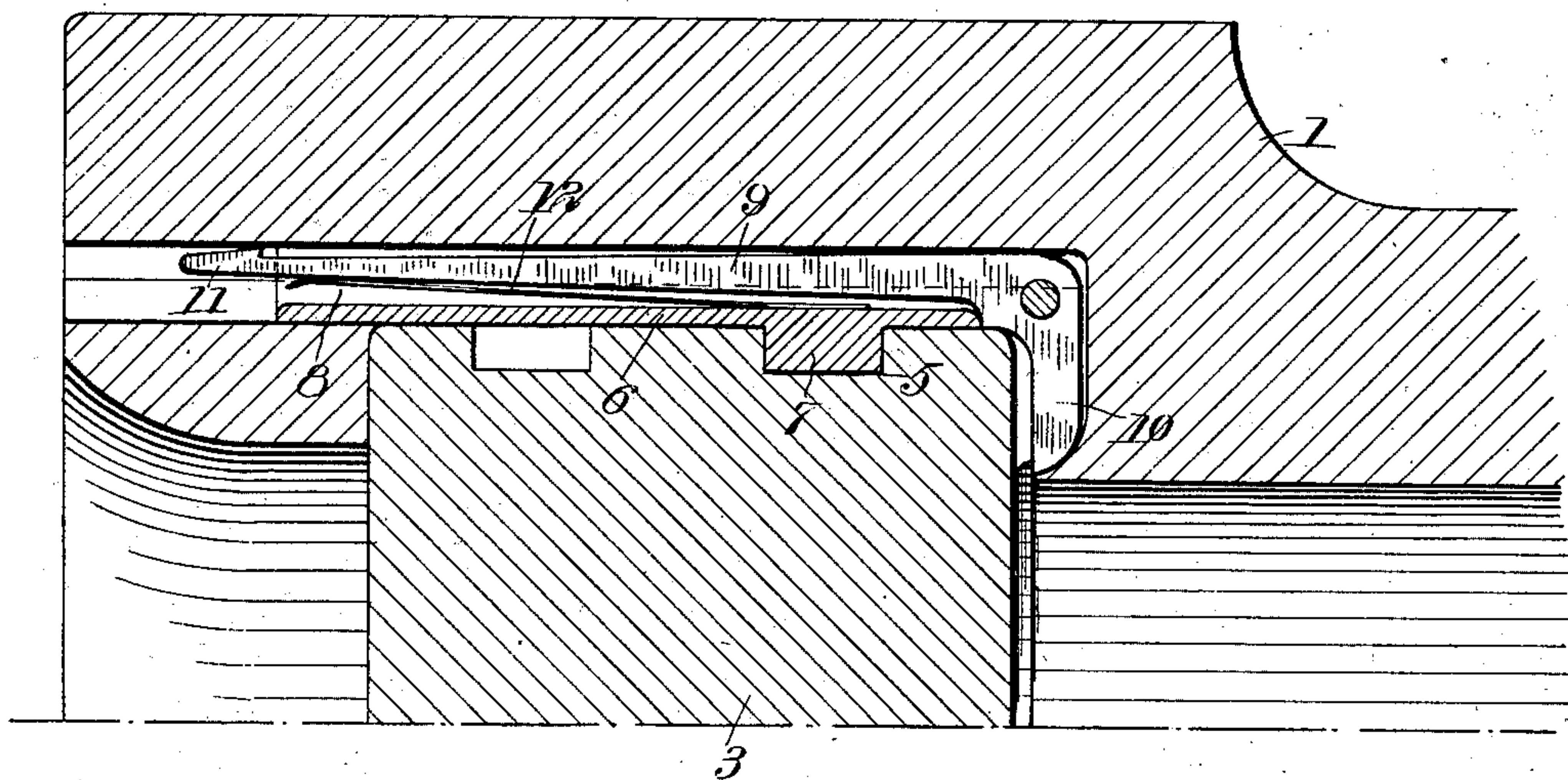


Fig. 4.

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UNITED STATES PATENT OFFICE.

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YORK, N. Y., A CORPORATION OF NEW YORK.

BREECH-LOADING ORDNANCE.

SPECIFICATION forming part of Letters Patent No. 735,934, dated August 11, 1903.

Application filed June 4, 1902. Renewed June 11, 1903. Serial No. 161,088. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. BEVANS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented a certain new and useful Improvement in Breech-Loading Ordnance; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same.

This invention relates to breech-loading ordnance; and the object is to provide in a semi-automatic or full-automatic gun improved means for holding the block in its open position against the action or influence of the mechanism for moving the block to its closed position, said means being so constructed and arranged as to positively lock the block when the latter has been moved a sufficient distance to unmask the bore of the gun and to automatically release the block upon the insertion of a fresh cartridge.

With the above object in view the invention consists in the novel features of construction hereinafter fully described, particularly pointed out in the claims, and clearly illustrated by the accompanying drawings, in which—

Figure 1 is a horizontal section of a portion of the gun-breech, showing the position of the parts when the block is locked in its open position. Fig. 2 is a side elevation of a gun provided with my invention. Fig. 3 is a sectional view similar to Fig. 1, the parts being shown in their normal positions; and Fig. 4 is a perspective view of the invention with the several parts thereof detached.

I have here illustrated and described my present invention in connection with my improved semi-automatic gun, patented to me May 7, 1901, No. 673,594; but it will be understood that the invention may be used wherever it is necessary to provide means for holding the breech-block of a gun in its open position against the action of any mechanism for automatically moving the block to its closed position until the gun has been again loaded.

In the drawings, 1 designates the recoiling gun; 2, the recoil-mount, upon which it is mounted; 3, the block, which is of the "drop-

block" type, and 4 the breech-closing means, in this instance a spring, against the tension of which the block is held in its open position by my present invention. The block is formed with a cam-groove 5 to receive the lug of the form of extractor now used in guns provided with this type of block.

In carrying out my invention I provide a two-part extractor, one member 6 of which is of such cross-sectional form as to fit and slide in the usual extractor-groove of the gun-breech. This member is formed on one face with a lug 7, engaging in the groove 5 of the block, and on its opposite face is provided with a longitudinal channel or groove 8, extending from end to end thereof to receive the other member 9 of the extractor. This member 9 is pivoted at its forward end to member 6 and at said forward end is formed with the usual inwardly-extending hook 10 for the purpose of engaging and removing the empty cartridge-case from the gun. Said member 9 projects at its opposite end beyond the end of member 6 and is formed with an outwardly-faced hook 11. A flat spring 12, secured to member 6 and pressing against member 9, serves to normally force the hooked end 11 thereof outwardly toward the wall of the breech-housing.

In operation when the block is moved to open the breech of the gun the cam-groove thereof coacting with the lug 7 of the extractor serves to move the extractor rearwardly, causing its hook 10 to throw out the empty cartridge-case. This movement of the block places the spring 4 under tension, and this spring would act to immediately move the block to close the breech were not some provision made for retaining the latter in its open position. In the present invention when the block has been moved a sufficient distance to unmask the bore of the gun and has operated the extractor to extract the cartridge-case the extractor will have moved rearwardly a sufficient distance to bring its hooked end 11 beyond the rear wall of the gun-breech. The spring 12 then acts to swing member 9 on its pivot, bringing the hook 11 in such position as to engage the rear wall of the gun-breech, thus holding the extractor from any forward

movement, and consequently preventing upward movement of the block to close the breech. Upon the insertion of a fresh cartridge the rim of the cartridge engages the hook 10 at the forward end of the extractor and swings member 9 on its pivot, disengaging hook 11 from the wall of the gun-breech and releasing the extractor, and consequently the block, so that spring 4 may act to move the latter to its closed position.

My improvement above described is simple in construction, positive and reliable in its operation, and by its use avoids the necessity of altering the block in any way or doing any work whatever thereon, there being no notches cut therein, as in the construction shown and described in my patent of May 7, 1901, hereinbefore mentioned.

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

1. The combination in a gun having means for automatically returning the block to its closed position, with the block and closing means, of an extractor comprising a member adapted to be actuated by the movement of the block, and a rocking member carried thereby having an engaging portion on one side of its pivot and an extracting portion on the opposite side thereof, and means independent of the extractor adapted to coact with the engaging end thereof when the block has been moved to its open position for holding the block in this position against the action of the block-closing means until a fresh cartridge has been inserted, substantially as described.

2. The combination in a gun having means for automatically returning the block to its closed position, with the block and closing means, of an extractor comprising a member adapted to be actuated by the movement of the block, and a rocking member carried thereby having an engaging portion on one side of its pivot and an extracting portion on the opposite side thereof, means independent of the extractor adapted to coact with the engaging end thereof when the block has been moved to its open position for holding the block in this position against the action of the breech-closing means until a fresh cartridge has been inserted, and means for holding said rocking member in position to coact with said independent holding means, substantially as described.

3. The combination in a gun having means for automatically returning the block to its closed position, with the block and closing means, of an extractor comprising a member adapted to be actuated by the movement of the block, and a rocking member carried thereby having an engaging portion on one side of its pivot and an extracting portion on the opposite side thereof, means independent of the extractor adapted to coact with the engaging end thereof when the block has been moved to its open position for holding the

block in this position against the action of the breech-closing means until a fresh cartridge has been inserted and a spring for holding said engaging portion of the extractor in position to coact with said means, substantially as described.

4. An extractor for breech-loading ordnance of the character described, comprising a member adapted to be actuated by the movement of the block, a rocking member carried thereby having an extracting portion on one side of its pivot and an engaging portion on the opposite side thereof adapted to engage the gun-breech, and means normally holding said engaging portion of the rocking member in position to engage said gun-breech when the block has been moved to open position, substantially as described.

5. The combination in a gun having means for automatically returning the block to its closed position, with the block and closing means, of an extractor comprising a member adapted to be actuated by the movement of the block, and a rocking member pivotally mounted on said member and provided on its forward end with an inwardly-extending extracting-hook and on its opposite end with an oppositely-disposed engaging hook, and means independent of the extractor adapted to be engaged by said engaging hook when the block has been moved to open position, substantially as and for the purpose set forth.

6. The combination in a gun having means for automatically returning the block to its closed position, with the block and closing means, of an extractor comprising a sliding member adapted to be actuated by the movement of the block, and a rocking member pivoted at the forward end of said sliding member and formed with an extracting-hook on its forward end and an engaging portion on its opposite end, means independent of the extractor adapted to coact with said engaging portion for holding the extractor from forward movement when the block has been moved to its open position, and a spring for holding said engaging portion in position to coact with said means when the extractor has been moved rearwardly, substantially as described.

7. A sliding extractor for breech-loading ordnance of the class described, comprising two members, one of which is mounted to rock on the other and formed with an extracting portion on one side of its pivot and an engaging portion on the other side thereof, substantially as described.

8. The combination in a gun having means for automatically returning the block to its closed position, with the block and closing means, of an extractor comprising a sliding member actuated by the block, means independent of the extractor adapted to hold the latter in its rearward position, and a rocking extracting member carried by said sliding member adapted to release the extractor from said holding means when rocked in one di-

rection upon its pivot, substantially as described.

9. The combination in a gun having means for automatically returning the block to its
5 closed position, with the block and closing means, of an extractor comprising a sliding member actuated by the block, an engaging member carried thereby, means independent of the extractor adapted to coact with said en-
10 gaging member to hold said sliding member in its rearward position, and a rocking extracting member carried by the extractor adapted to actuate said engaging member to release the extractor when rocked by the insertion of a
15 fresh cartridge, substantially as described.

10. The combination in a gun having means for automatically returning the block to its closed position, with the block and closing means, of an extractor comprising a sliding
20 member actuated by the block, an engaging member carried thereby, means independent of the extractor adapted to coact with said engaging member to hold the extractor in its rearward position, a rocking extracting mem-
25 ber carried by said sliding member adapted to actuate said engaging member to release the extractor when rocked by the insertion

of a fresh cartridge, and means for normally holding said engaging member in position to coact with said independent holding means, 30 substantially as described.

11. The combination in a gun having means for automatically returning the block to its closed position, with the block and closing means, of an extractor comprising a sliding 35 member actuated by the block, engaging means carried by the sliding member adapted to engage the gun-breech when the extractor has been moved rearwardly, a spring normally holding said engaging means in po- 40 sition to engage the gun-breech, and a rocking extracting member carried by the extractor adapted to disengage said engaging means from the gun-breech when rocked upon its pivot by the insertion of a fresh car- 45 tridge, substantially as described.

In testimony whereof I have hereunto affixed my signature in the presence of two witnesses.

W. H. BEVANS.

Witnesses:

G. W. SHERIDAN,
L. E. BRADSTREET.