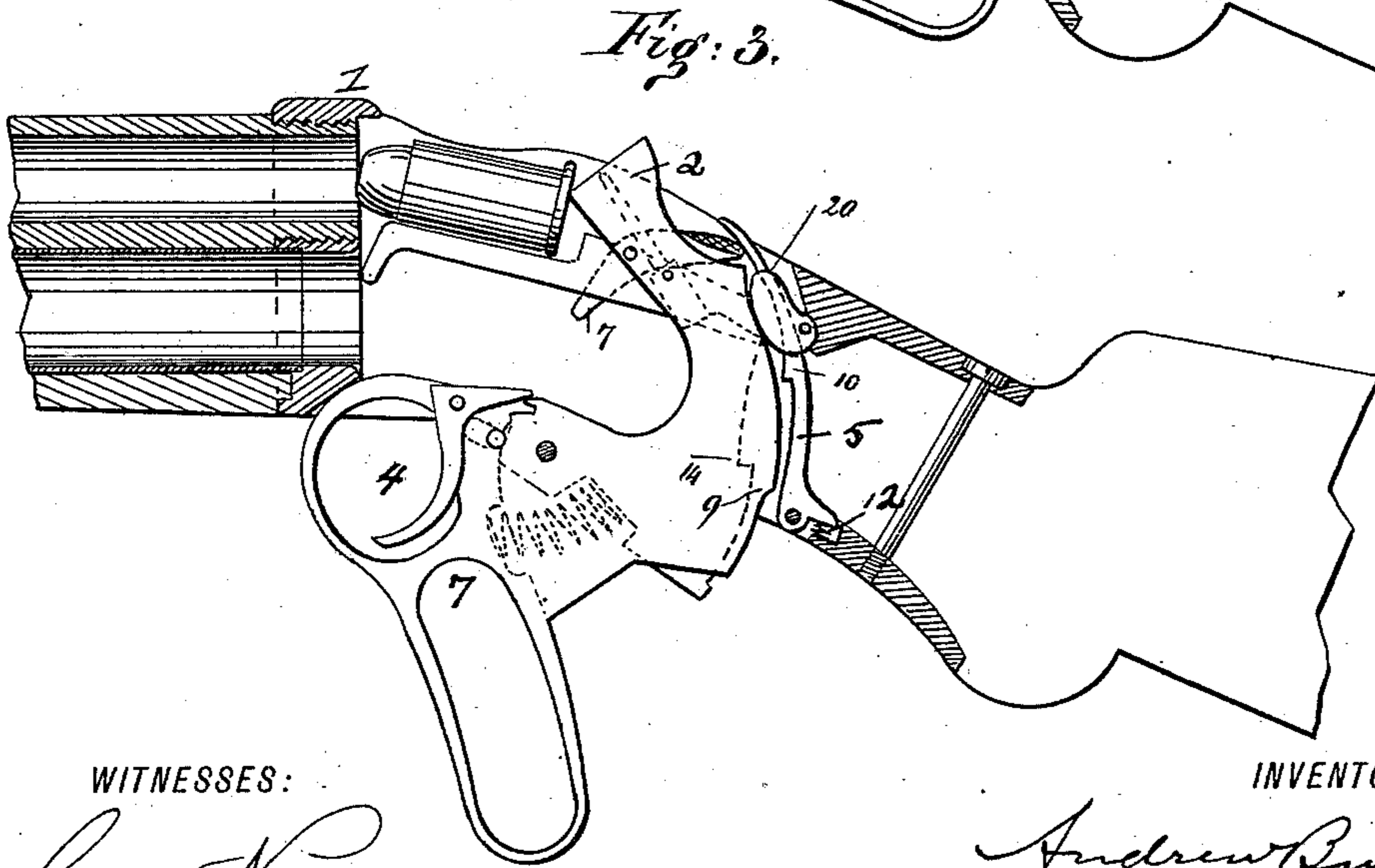
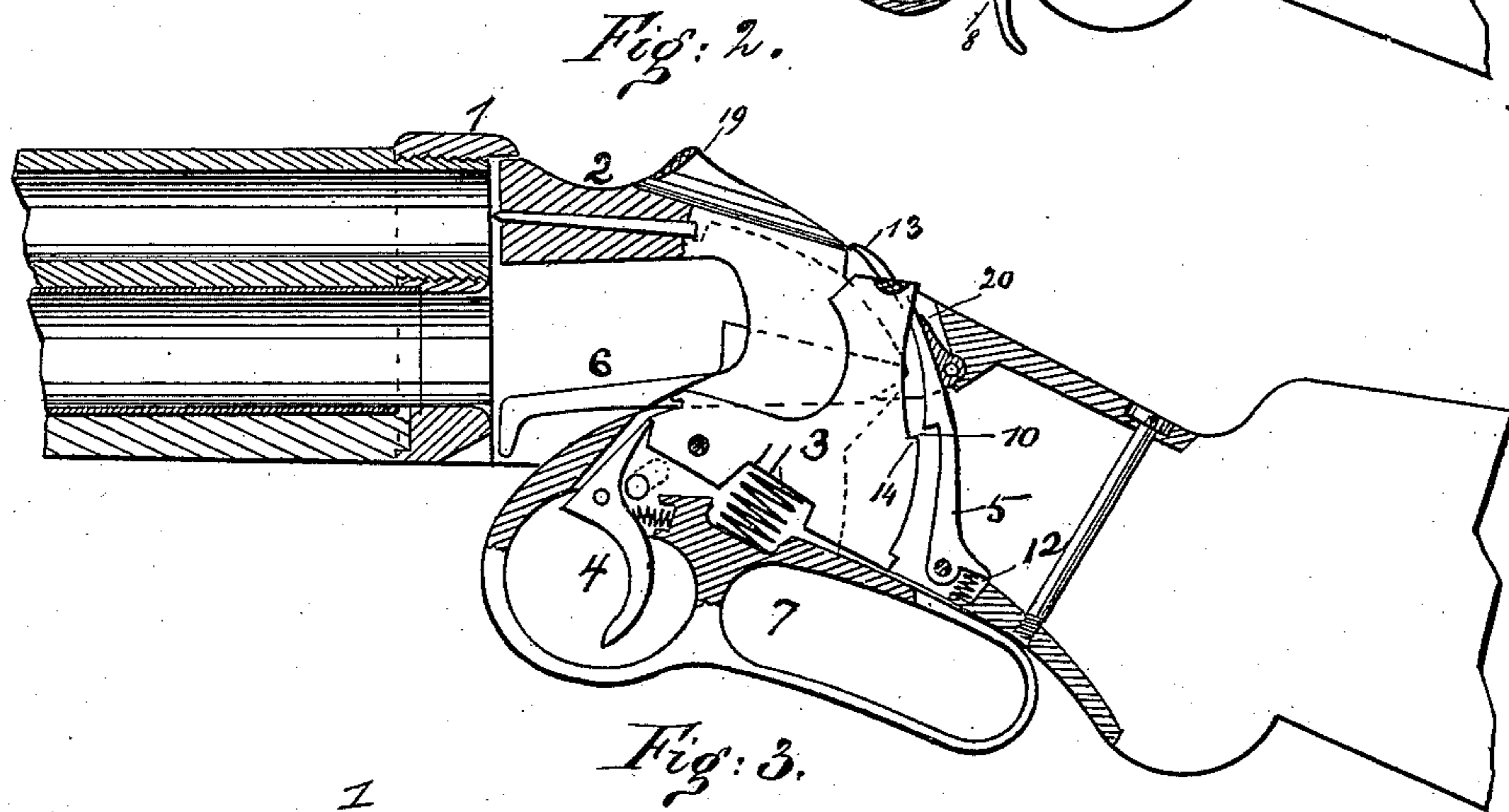
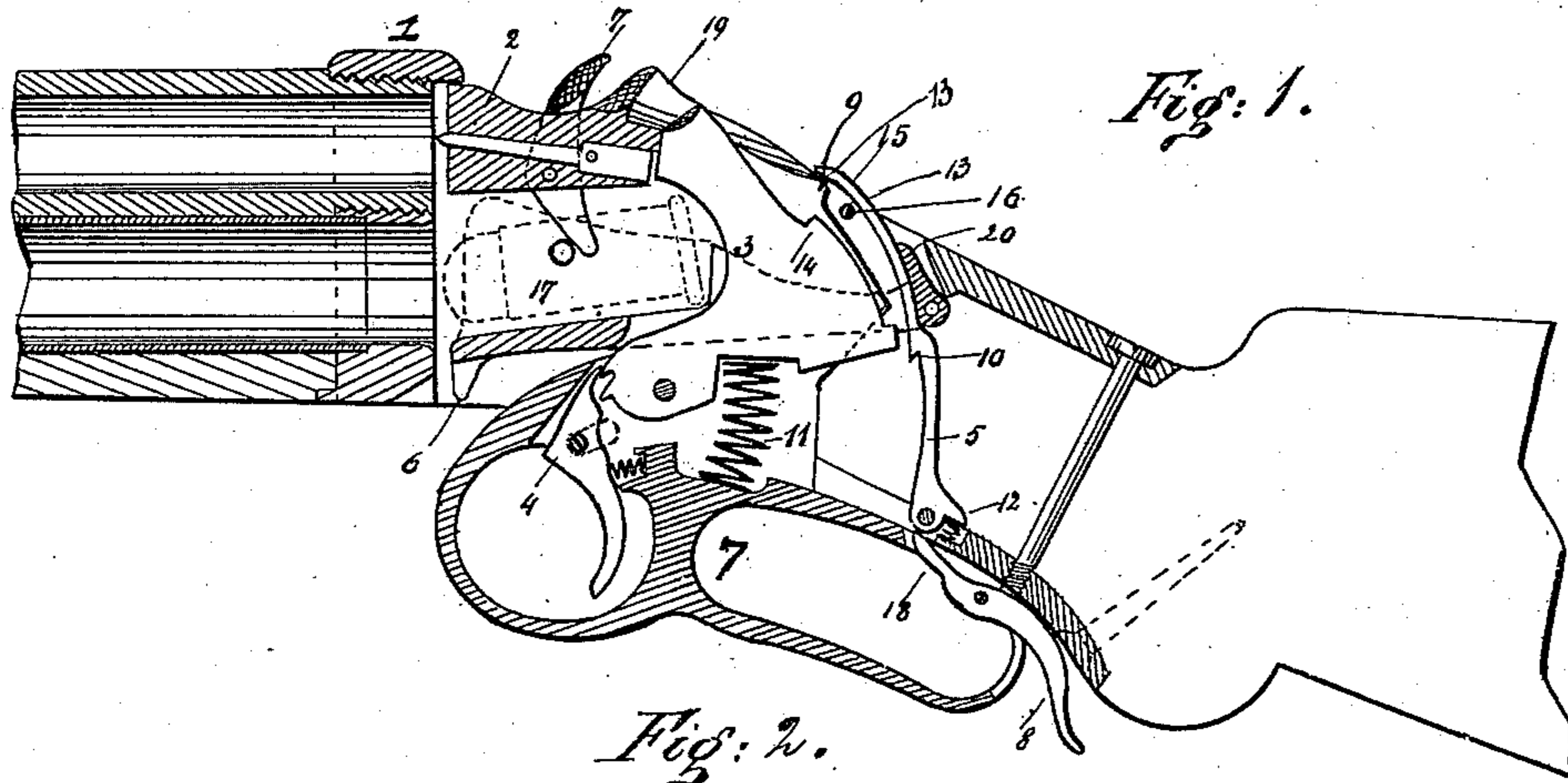


A. BURGESS.
MAGAZINE FIRE ARM.

No. 463,225.

Patented Nov. 17, 1891.



WITNESSES:

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H. A. West.

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Fig: 4.

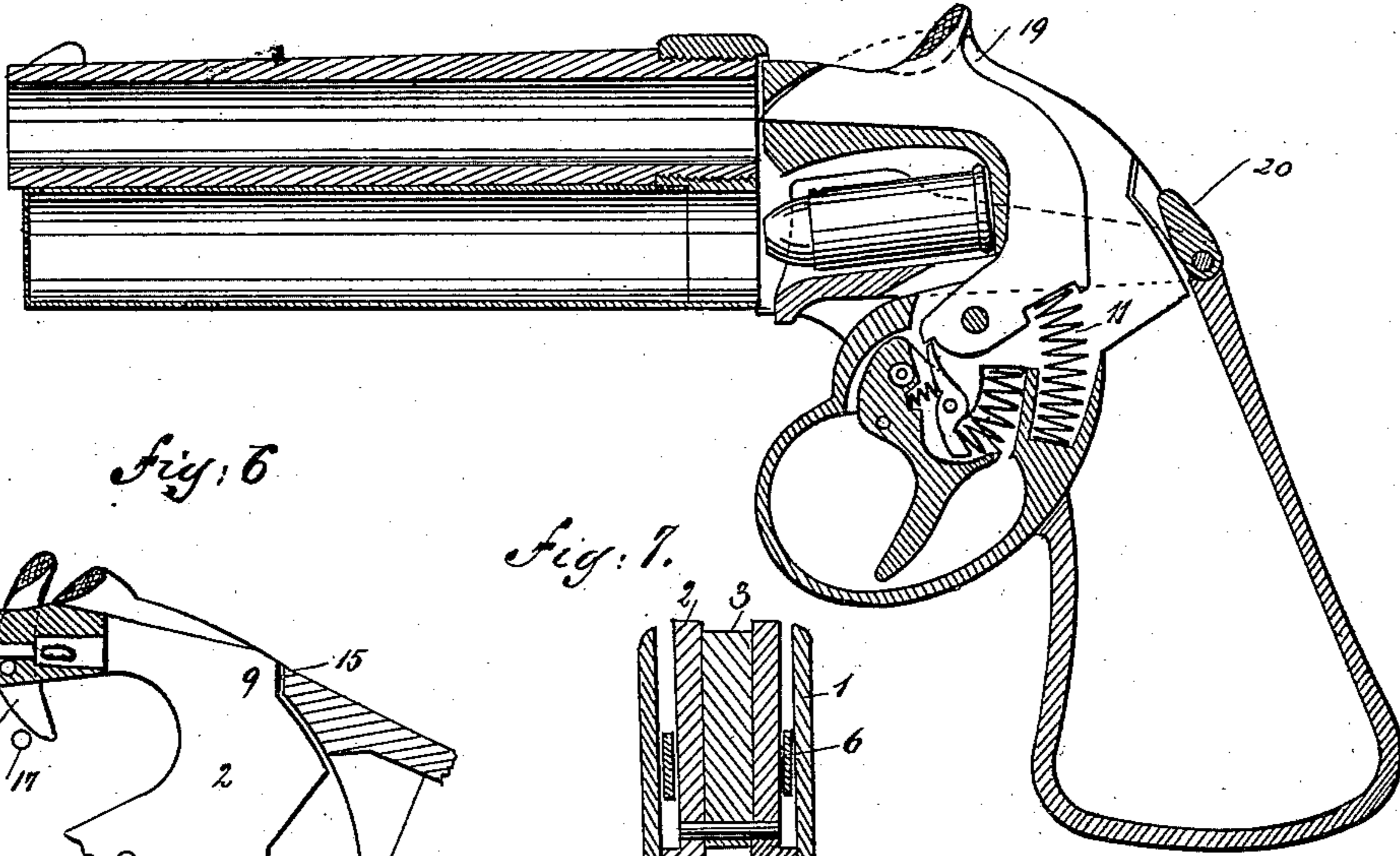


Fig: 6.

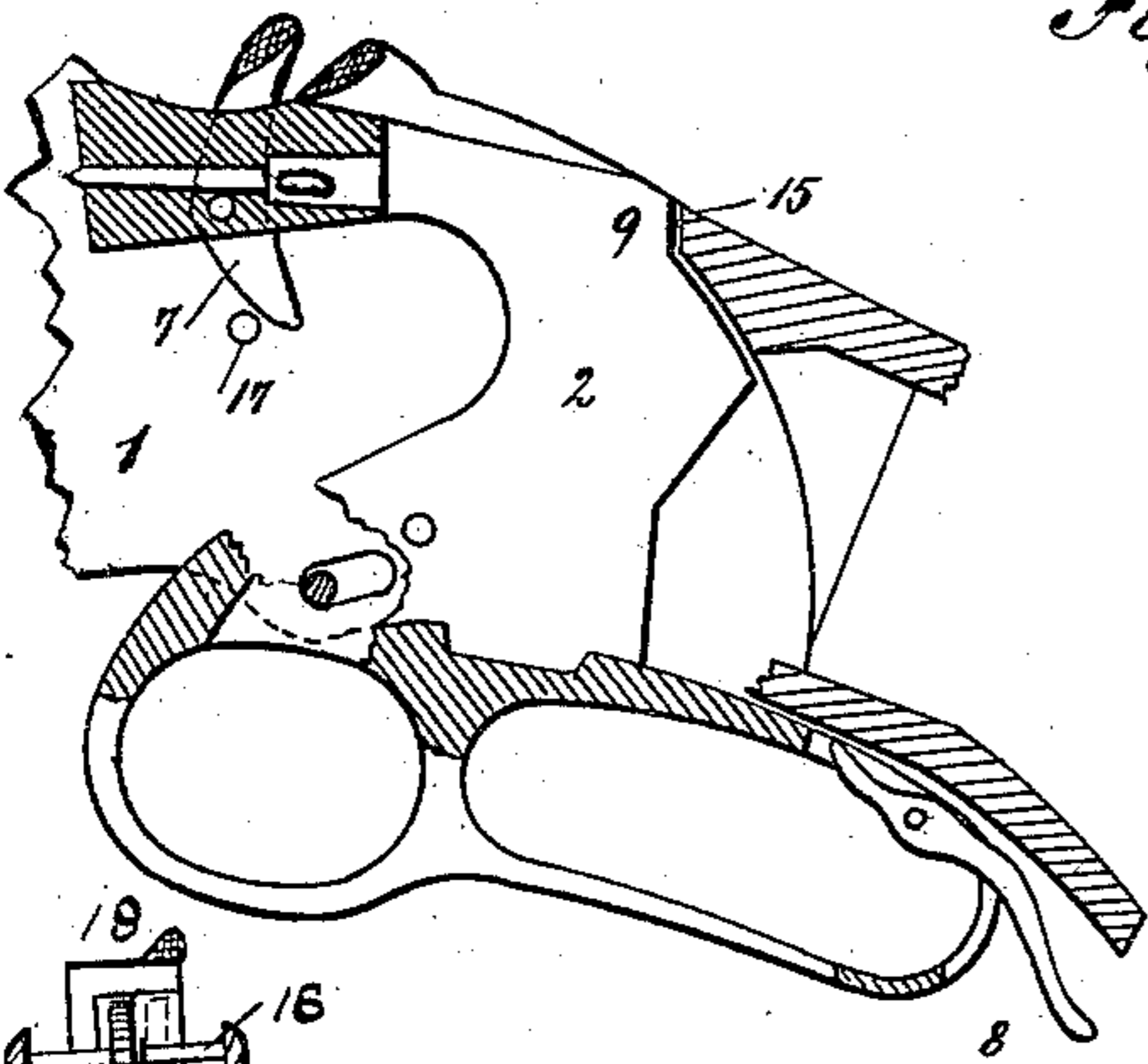


Fig: 7.

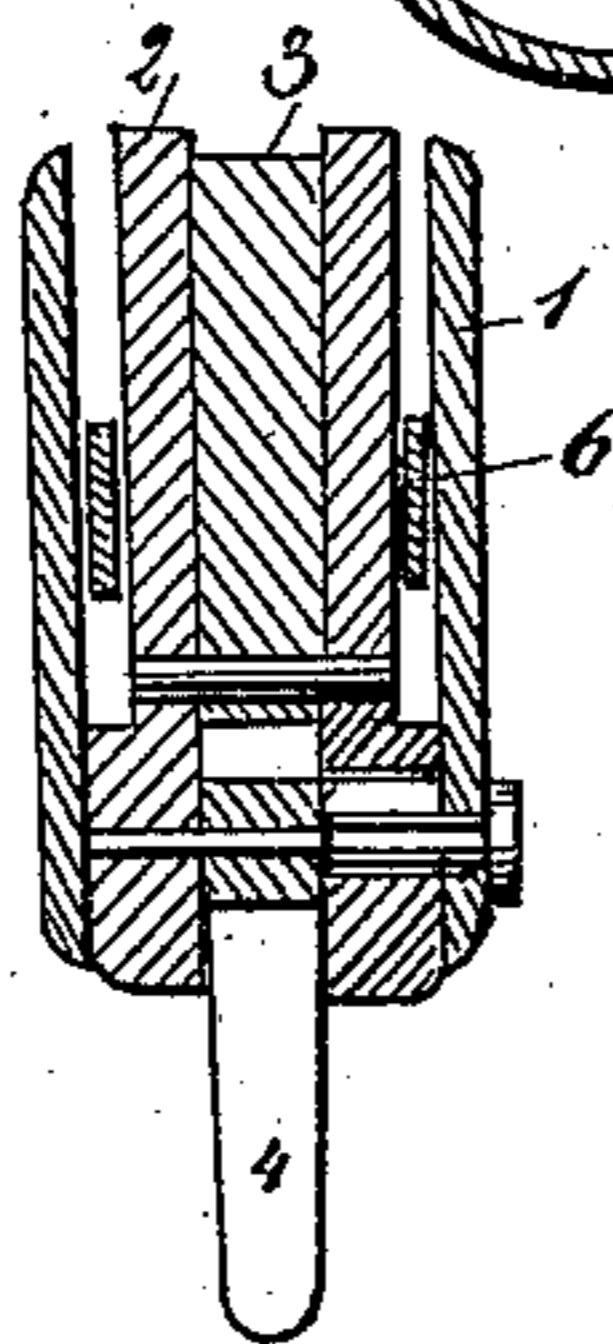


Fig: 8.

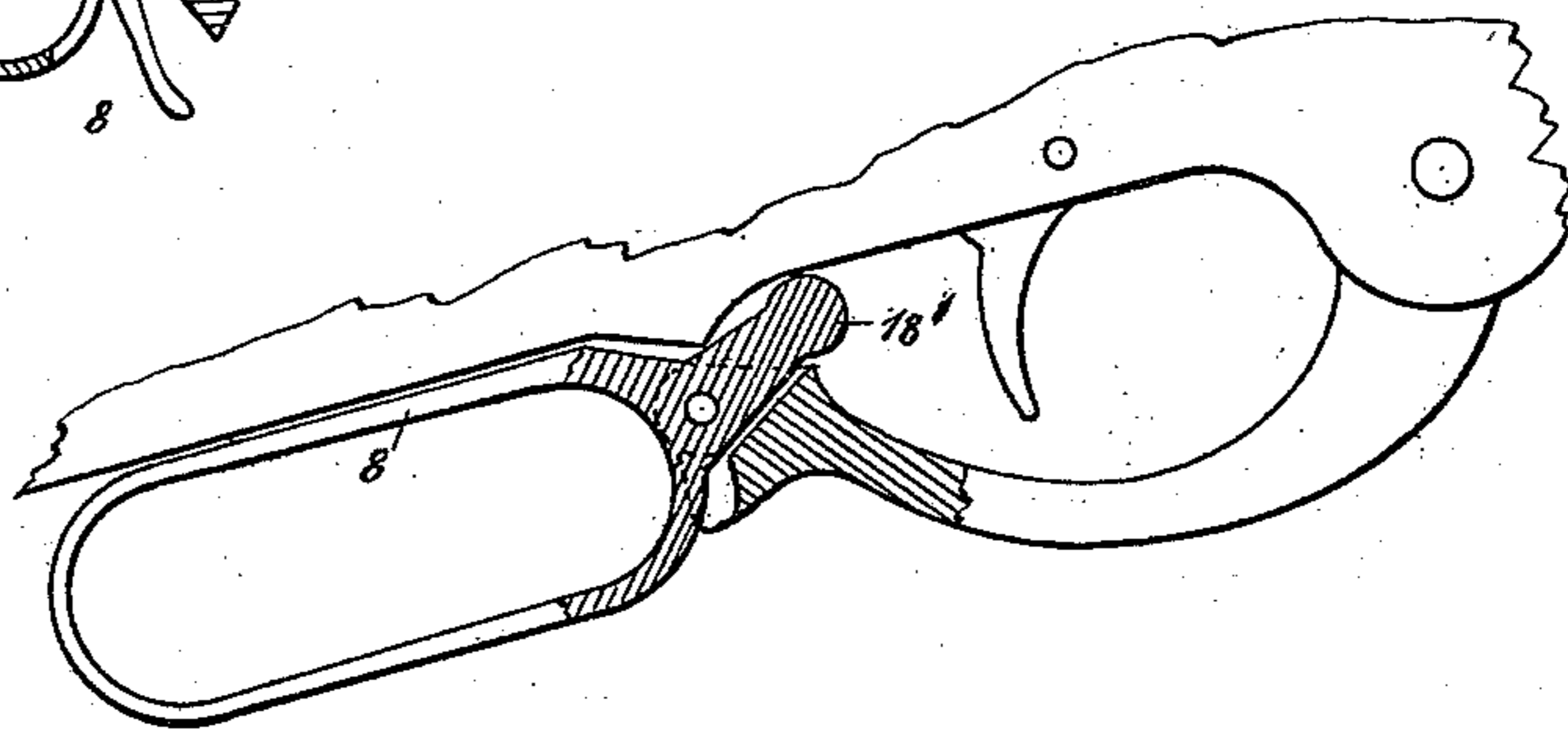


Fig: 9.

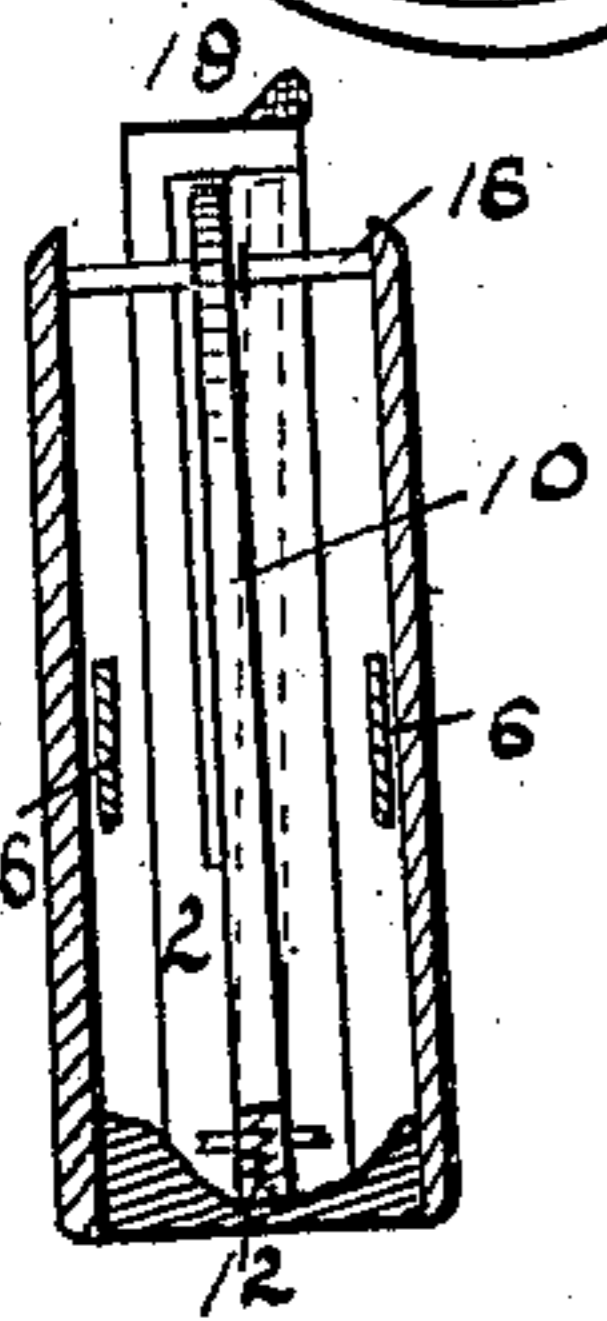
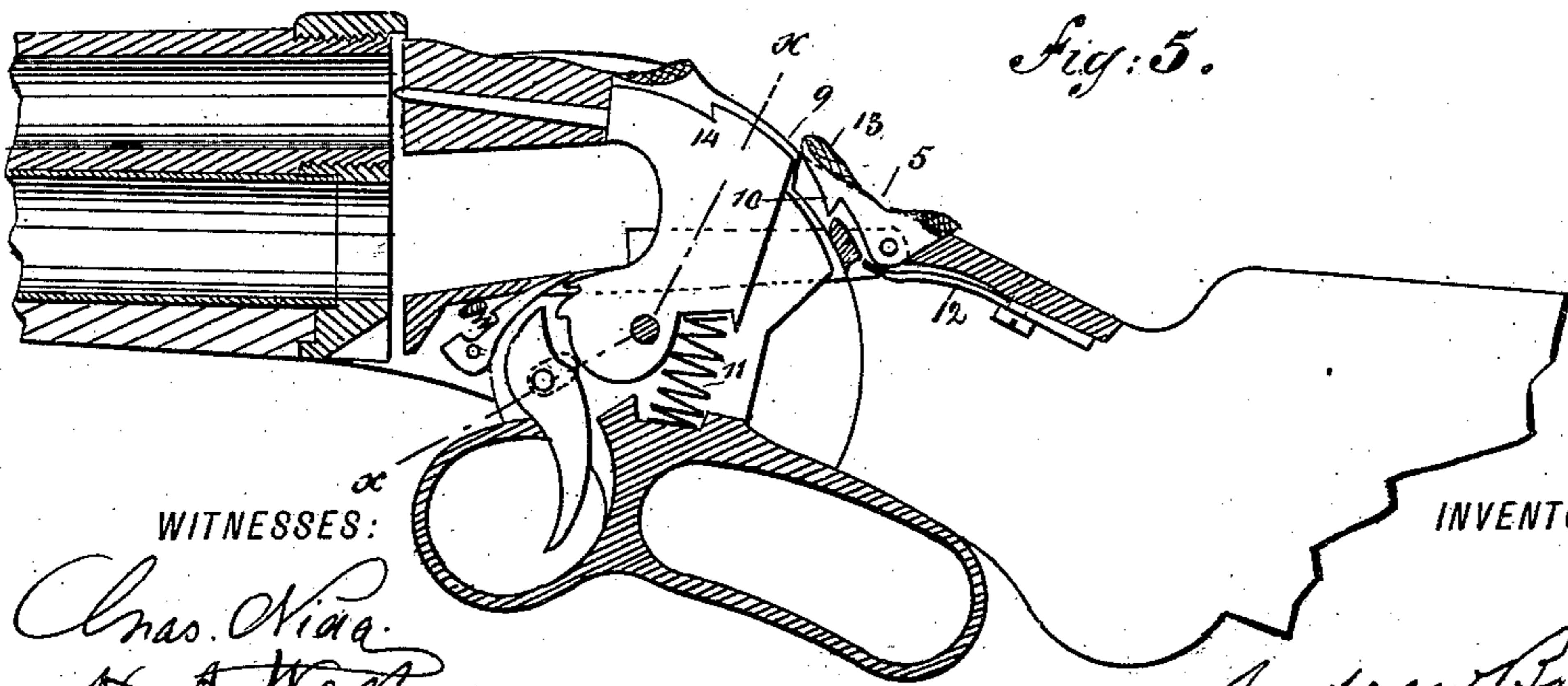


Fig: 5.



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UNITED STATES PATENT OFFICE.

ANDREW BURGESS, OF OWEGO, NEW YORK.

MAGAZINE FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 463,225, dated November 17, 1891.

Application filed September 6, 1887. Serial No. 248,986. (No model.)

To all whom it may concern:

Be it known that I, ANDREW BURGESS, a citizen of the United States, residing at Owego, in the county of Tioga and State of New York, have invented certain new and useful Improvements in Magazine Fire-Arms; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to breech-loading and magazine fire-arms, having for its object safety, simplicity, compactness, and easy manipulation; and it consists of various arrangements and combinations of parts hereinafter described, and illustrated by accompanying drawings.

Figure 1 is a longitudinal section in elevation of this arm. Fig. 2 is a similar view with the hammer in a cocked position, and Fig. 3 shows the same with the breech open. Fig. 4 is a view similar to Fig. 1, but showing the application of features of this invention to a "self-cocking" pistol; and Fig. 5 shows the trigger hung in a similar manner at the axis of the breech-piece. Fig. 6 shows the breech-piece of Fig. 1, with its starting-lever and the bearings in the frame. Fig. 7 is a cross-section showing an axial pin for the breech-piece fixed in one side of the frame and axes of hammer and trigger fixed in the breech-piece. Fig. 8 shows a jointed guard-lever, which is a modification of the breech-starting devices shown in Fig. 1. Fig. 9 is a cross-section of so much of the arm as is necessary to illustrate the side shifting of the cocking-dog. The side movement may be permitted either by the loose fit of the dog on its pivot or by the elasticity of the dog.

In the drawings, 1 is the frame; 2, the breech-piece; 3, the hammer; 4, the trigger; 5, the cocking-sear; 6, the carrier; 7, the breech-starting lever, and 8 the supplementary guard-lever to start the breech.

The breech-piece of this gun is hung to vibrate in the frame to open and close the breech and move outward from its axis to lock against

a shoulder in the frame in a manner well known; but I here hang the trigger or sear-piece substantially in the axis of the breech-piece and the hammer also in the breech-piece, but so remote from its axis as to be in proper position to be engaged by the trigger or sear. The frame has a slot on each side, instead of the usual slot in the breech-piece, to permit the locking movement of the breech, so that the pivots of the hammer and trigger shall remain in the same relative position to each other.

In the modification, Fig. 7, the pivot of the breech-piece is fixed in but one side of the frame and enters the usual slot of the breech-piece, but only through one side or half of the thickness of said breech-piece, to allow the trigger to be pivoted to the other side of the breech-piece directly opposite the pivot of said breech-piece, so that the pivots of the hammer and trigger are both fixed in the breech-piece; but the trigger-pivot does not also serve as axis of the breech-piece, as in Fig. 1.

The hammer may be cocked independently of the movement of the breech-piece by engaging its thumb-piece at the top of the frame in the usual manner; but in this arm I use special devices for cocking the hammer by the movement of the breech or trigger.

The breech-piece has a vertical opening in its rear part, in which the hammer is pivoted. An extension of the breech-piece below the frame forms the trigger-guard and operating-lever, and a projection of said breech-piece at the top of the frame serves as a thumb-piece by which the power of the thumb above the frame assists the power applied to the guard-lever by the fingers of the operator, so that a wrenching or turning movement of the hand thus applied to the breech may be used to operate it, or it may be operated by either the thumb-piece above or guard-lever below. The mainspring 11 is housed in the guard-lever or bottom of the breech-piece to bear up against the hammer rearward of its pivot.

A cocking-dog 5 is pivoted in the frame of the gun rearward of the hammer and has a spring 12 to press its projection 10 against the rear of the hammer. In opening the breech from its position shown in Fig. 1 to that in Fig. 3 the hammer moves back freely with

the breech-piece; but then in closing the breech the notch 14 of the hammer is engaged by the projection 10 of the cocking-dog, so that the hammer cannot return forward with the breech-piece, but is held back by said dog until the last part of the closing and locking movement of the breech, when, as the breech-piece raises its locking-shoulder 9 forward of the abutment 15 in the frame to lock the breech, the locking-shoulder 9 presses back the dog 5 by engaging the upward extension 13 of the cocking-dog, and thereby releases the dog from its engagement with the hammer, so that the hammer will then be released to fall by the movement of the breech in locking when not held by the sear, (the trigger may be held back to keep the sear out of engagement with the hammer;) but if the sear is left free it will have attained position by the closing movement of the breech to spring into its notch in the hammer, as shown in Fig. 2, the moment before the dog 5 is released from the hammer, as aforesaid. The trigger turns with the breech, so as to change its position relatively to the hammer when the hammer is held by the cocking-dog.

By the above-described device the hammer cannot be made to fall or fire the arm until the breech is closed.

The extension 13 of the dog 5 may be turned laterally onto the abutment 16 of the frame to support the said dog out of engaging position when it is not desirable to use it.

In the modification, Fig. 4, I show a trigger hung in the breech-piece and having a sear-piece connecting with the hammer, by which the well-known self-cocking movement of the trigger is applied to operate in this combination to cock the hammer. In the pistol construction illustrated the cocking-dog 5 is omitted and the breech operated as before. I pivot a lever 7 in the forward part of the breech-piece with a thumb-piece extending above its pivot and the frame, and its lower arm is in position to engage a fulcrum 17 in the frame. The thumb-piece is stopped from turning farther forward than here shown in Fig. 1, so that when the breech-piece is moved down to unlock the inclined front face of the lever 7 is forced against the fulcrum 17 to wedge the breech a little back in its unlocking movement, when by pulling back on the thumb-piece of lever 7 its lower arm is pressed thereby against the fulcrum 17 to start back the breech. A supplementary lever 8 is pivoted in the guard-lever and has a projecting long arm by which to be engaged to turn it and a short arm 18 to be thereby forced against the bottom of the guard strap or frame to vibrate the guard-lever downward and thereby start open the breech.

Fig. 8 shows a modification of the above starting-levers, in which a joint of limited movement is made midway in the guard-lever, so that when the rear part of lever 8 is being turned downward it forces the forward short

part 18' up against the body of the gun to pry the guard-lever downward and start the breech.

The vibrating cartridge-carrier is hung to the rearward of the breech-piece and has a vertical opening through which the breech and hammer operate, and its free front end is formed to receive and raise the cartridges from the magazine to the barrel. The carrier has an upward extension 20 above its pivot and rearward of the breech-piece, and the breech-piece has a projection 19, whose path of movement when the breech is being opened brings it in contact with the extension 20 of the carrier when the breech has nearly completed its opening movement and presses back on said extension to vibrate the carrier on its pivot and thereby raise the cartridge.

I claim—

1. In the frame of a breech-loading fire-arm, a vibrating breech-piece which turns forward to close the breech, a thumb-piece separate from the hammer and attached to the top of said breech-piece, and a guard-lever below the frame and connected to the breech-piece, all in combination, whereby a wrenching movement of the hand engaging the said thumb-piece above and guard-lever below the frame vibrates the breech-piece backward to open the breech, substantially as specified.

2. A vibrating breech-piece hung on a pivot in the frame of a breech-loading fire-arm and a trigger hung in substantially the axis of said breech to turn therewith, in combination with a hammer pivoted in said breech-piece on a pivot eccentric to the pivot of the breech-piece, substantially as described.

3. In a breech-loading fire-arm, a vibrating breech-piece, a hammer arranged therein to partake of the backward movement of said breech-piece, a cocking-dog in the frame to retain the hammer back while the breech is being closed, and a contact-surface on said cocking-dog in position to be engaged by an abutment moved by the locking-breech to release said dog, all combined substantially as set forth.

4. In a breech-loading fire-arm, a vibrating breech-piece, a hammer arranged therein to partake of the backward movement of said breech-piece, a cocking-dog to retain the hammer back when the breech is being closed, a contact-surface on said cocking-dog in position to be engaged by an abutment moving with the locking-breech to release said dog, a sear-piece to hold the hammer cocked independent of the cocking-dog, and a trigger to release the sear and hammer, all combined substantially as described.

5. In a breech-loading fire-arm, a vibrating breech-piece, a hammer arranged therein to partake of the backward movement of said breech, a cocking-dog to retain the hammer back when the breech is being closed, a contact-surface on said cocking-dog in position

to be engaged by an abutment moved by the locking-breech to release said dog, and means, substantially as described, to support the cocking-dog out of engaging position with the hammer, all in combination.

5
10
15
20
25
6. In a magazine fire-arm, a pivoted breech-piece having a projection on its outer part, in combination with a vibrating carrier pivoted to the rearward of said breech-piece and having an extension above its pivot in the path of movement of the projection of the breech-piece, so that said projection engages the carrier-extension, substantially as described, in the last part of the opening movement of the breech to raise the carrier.

7. In a breech-loading fire-arm, a pivoted breech-piece and a hammer pivoted thereto remote from the axis of said breech-piece and having a spring housed therein, in combination with a trigger hung substantially in the axis of the breech-piece and a contact-surface by which the trigger engages the hammer to cock or release it.

8. In a breech-loading fire-arm, a pivoted breech-piece whose upper part swings forward

to close the breech, and a starting-lever hung to the upper part of said breech-piece, one arm of said lever being provided with a projecting thumb-piece for operating it and its other arm engaging a fixed part of the frame to start open the breech, substantially as described.

9. In a breech-loading fire-arm, a breech-piece and a guard-lever connected to said breech-piece in such manner that said lever serves as a handle whose vibrating movement opens and closes the breech, a supplementary lever pivoted to said guard-lever with limited movement on its part, as described, and a projecting handle to said supplementary lever, one arm of said lever, engaging a fixed part of the gun to turn the guard-lever and start open the breech.

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

ANDREW BURGESS.

Witnesses:

GEORGE F. ANDREWS,
B. W. LORING, Jr.