

(No Model.)

2 Sheets—Sheet 1.

W. H. GATES.
MAGAZINE PISTOL.

No. 566,513.

Patented Aug. 25, 1896.

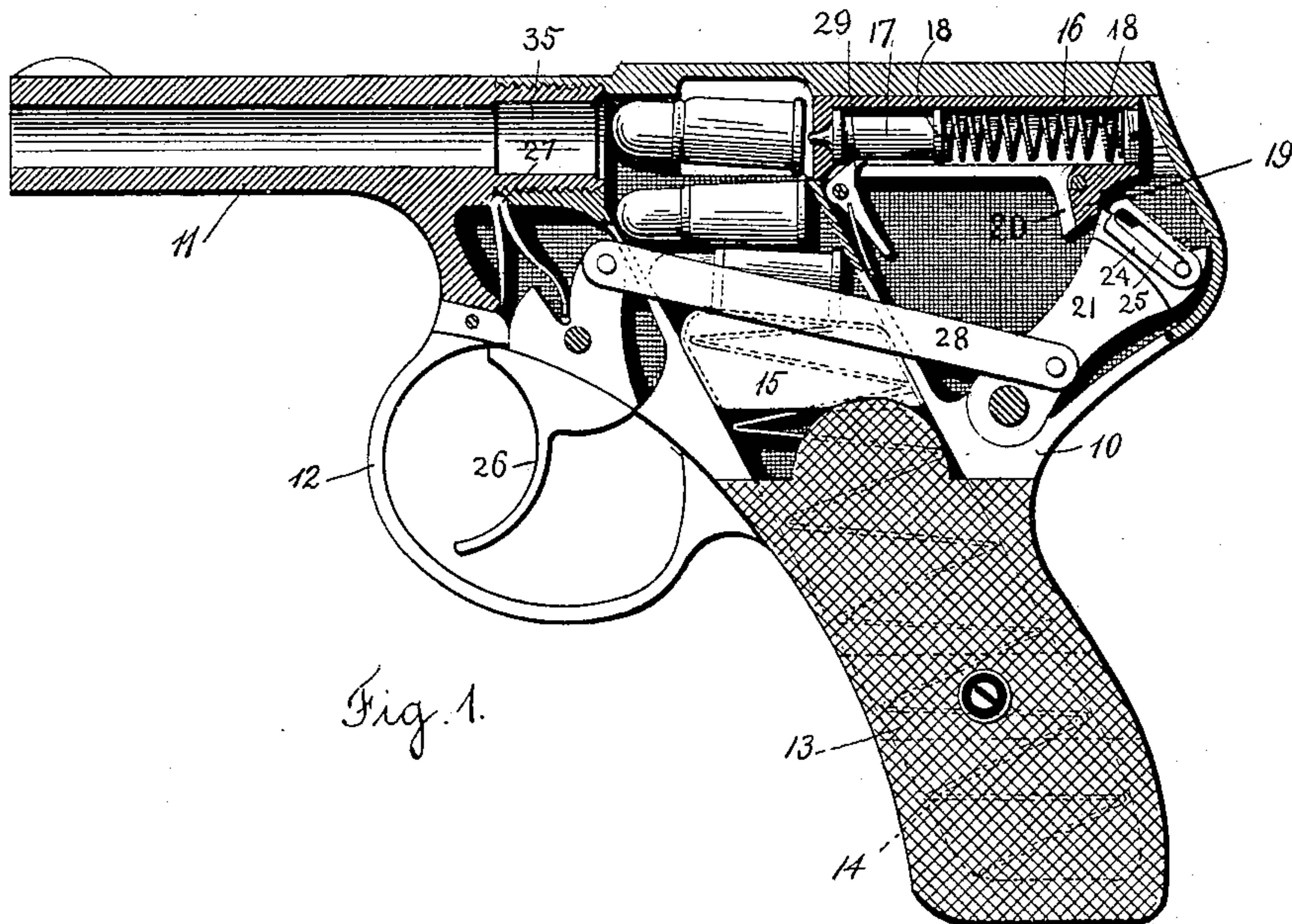


Fig. 1.

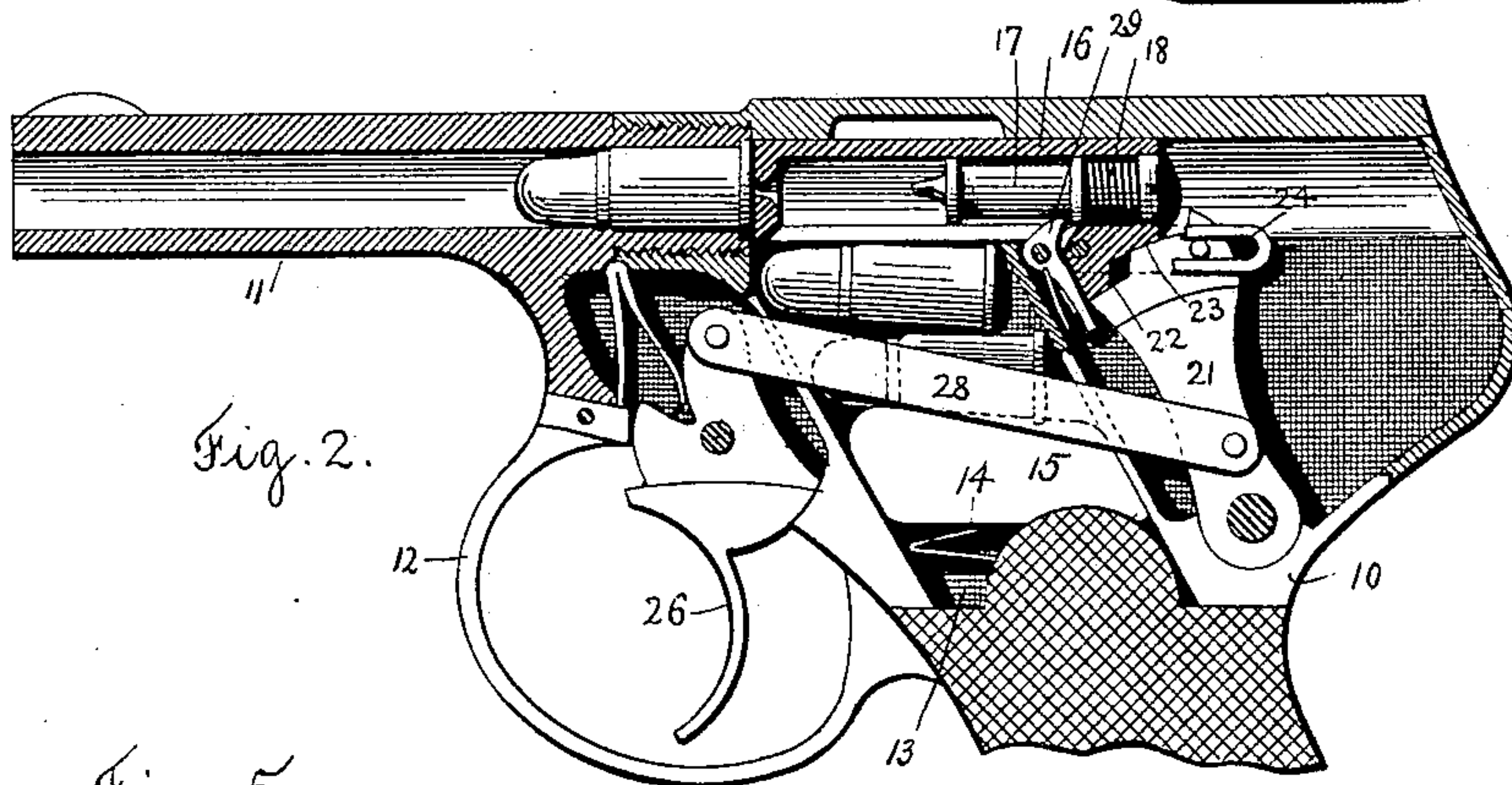


Fig. 2.

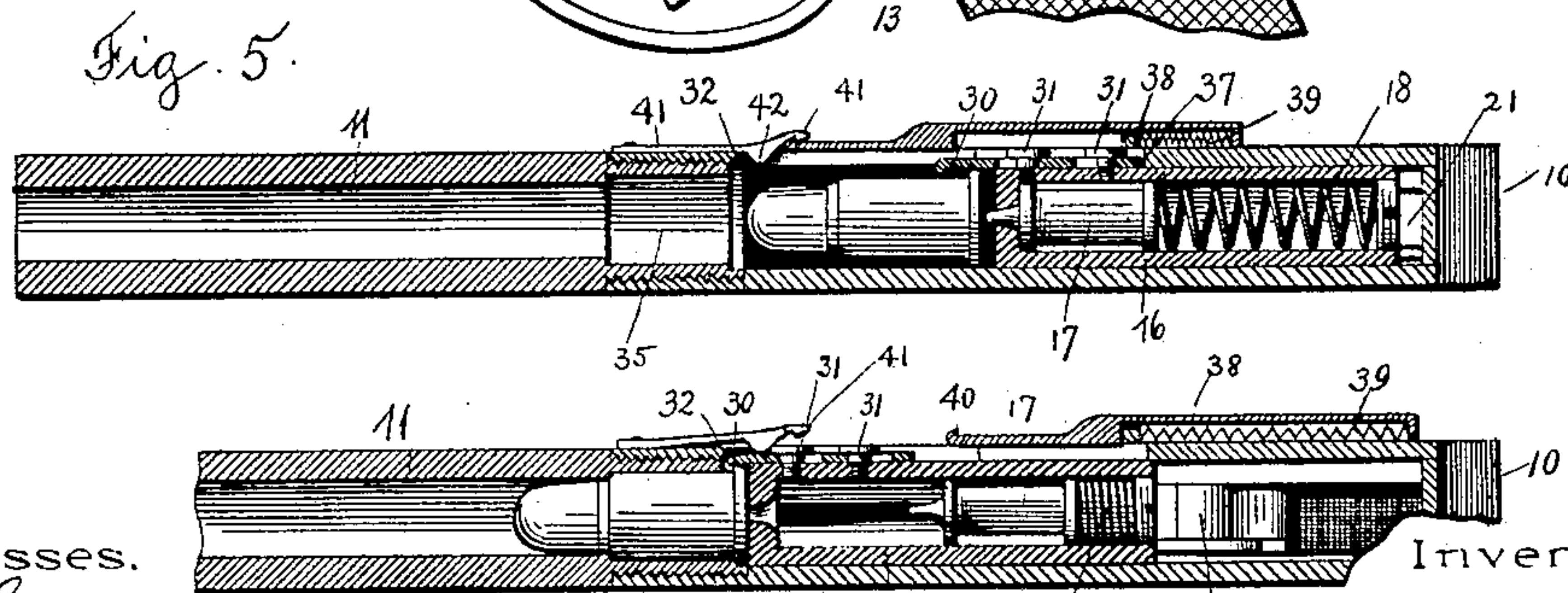


Fig. 5.

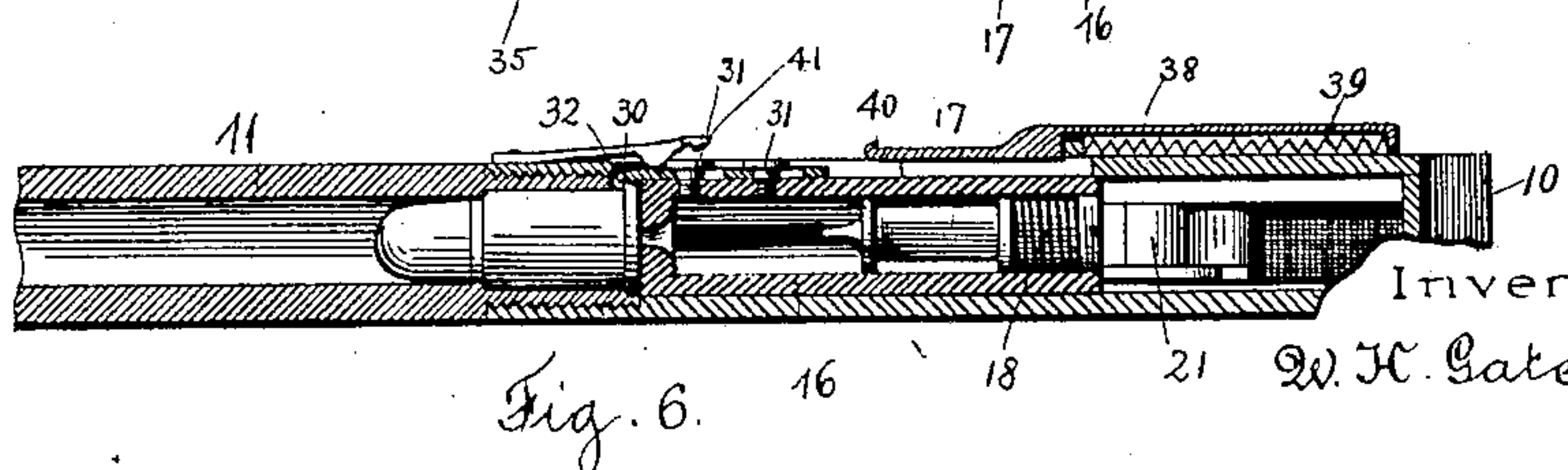


Fig. 6.

Witnesses.
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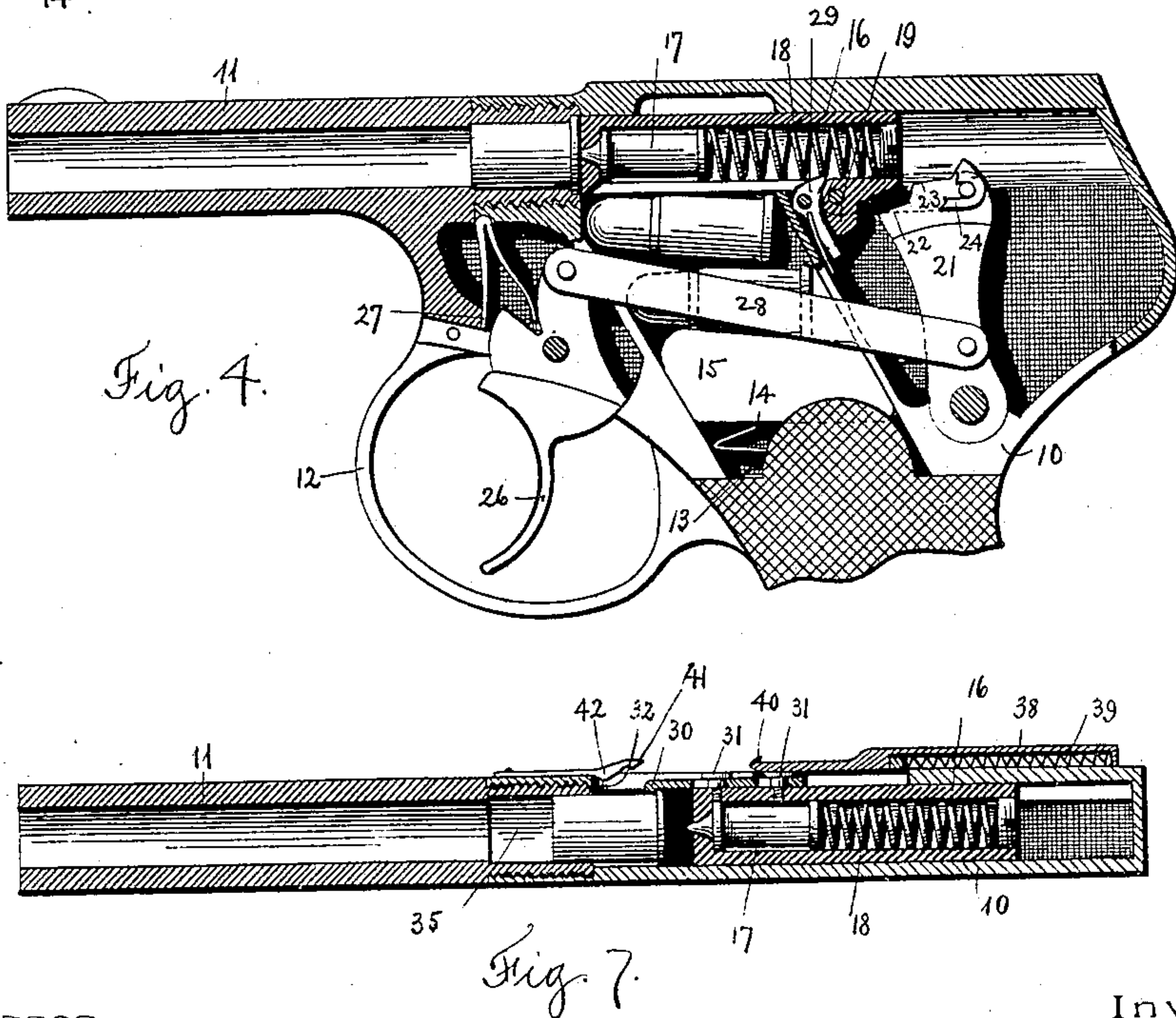
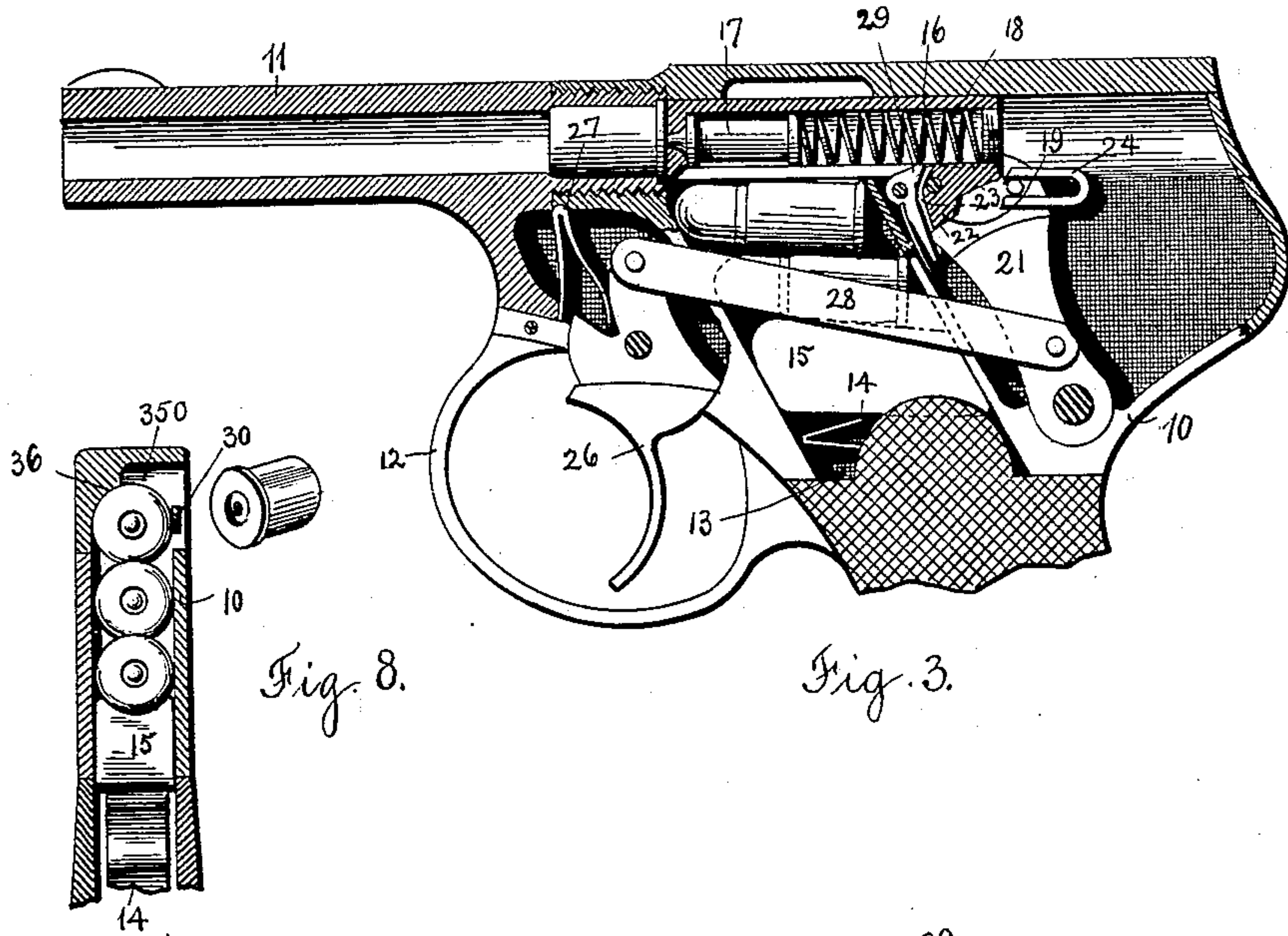
(No Model.)

2 Sheets—Sheet 2.

W. H. GATES.
MAGAZINE PISTOL.

No. 566,513.

Patented Aug. 25, 1896.



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM H. GATES, OF WORCESTER, MASSACHUSETTS.

MAGAZINE-PISTOL.

SPECIFICATION forming part of Letters Patent No. 566,513, dated August 25, 1896.

Application filed August 15, 1895. Serial No. 559,351. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. GATES, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Magazine-Pistols, of which the following is a specification.

My invention relates to a magazine-pistol or similar firearm, and the object of my invention is to provide a strong, simple, and compact firearm which will shoot more accurately than the ordinary revolver, and in which the operating mechanism is so constructed that there will be little danger of accident.

To these ends my invention consists of the parts and combinations of parts as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying two sheets of drawings, Figures 1, 2, 3, and 4 are sectional views of a magazine-pistol constructed according to my invention, the operating parts being shown in different relative positions. Figs. 5, 6, and 7 are sectional plan views, the parts being shown in different relative positions; and Fig. 8 is a transverse sectional view, illustrating the action of the ejector.

A magazine pistol or firearm constructed according to my invention comprises a sliding bolt which is arranged to feed a cartridge into the firing-chamber, and an operating-piece for the bolt, said bolt and said operating-piece being provided with engaging surfaces for locking the bolt in its forward position, so that it will not be thrown back by the concussion or recoil when a cartridge is exploded.

In the construction as illustrated the sliding bolt is provided with a spring firing-pin, which is withheld by a sear or detent when the bolt is being moved forward, the sear or detent being released after a cartridge has been fed into the firing-chamber and the sliding bolt has been locked in its forward position. This operating mechanism is located at the rear of the magazine, while the trigger is pivoted in front of the magazine and is connected to this mechanism by a suitable link, which is arranged at one side of the magazine.

It is to be understood that while I have

illustrated my improvements as applied to a magazine-pistol certain features of my invention can be employed in rifles or other firearms without departing from the scope of my invention, as hereinafter pointed out in the claims.

Referring to the drawings and in detail, 10 designates a suitable frame; 11, the barrel, having a counterbore or firing-chamber 35 at its rear end; 12, a trigger-guard, and 13 a magazine, which is located near the center of the pistol. The cartridges may be introduced into the magazine 13 in any of the usual ways and will be forced up into position to be acted upon by the operating devices by means of a magazine-spring 14 and a follower 15. The parts thus far referred to may be of any of the ordinary or approved constructions, and need not be described at length.

Mounted in the frame of the pistol at the rear of the magazine, and arranged to force the top cartridge of the magazine into the firing-chamber, is a sliding bolt 16. A cylindrical firing-pin 17, having a reduced central portion and collars or enlargements near its ends, is loosely mounted in the sliding bolt 16, and is normally forced forward by a spiral spring 18. A detent or sear 29, pivoted in the framing, extends up through a slot in the sliding bolt 16 in position to engage with the rear collar or enlargement of the firing-pin 17, to withhold the firing-pin until released by the operating piece or lever, as hereinafter described. The sliding bolt 16 is provided near its rear end with a downwardly-extending lug or projection 19, which is slotted, as at 20, so as not to engage or interfere with the sear 29. Normally engaging behind the lug or projection 19 is an operating piece or lever 21, which is pivoted at its lower end, and fits into a socket in the pistol-frame and takes up the concussion, as hereinafter described. The sliding bolt 16 is provided near its rear end with curved surfaces, which, when the sliding bolt is in its forward position, mesh with and engage surfaces 22 and 23, which are formed on the lever 21 concentrically with its pivot. A retracting-link 24 is pivoted near its rear end to the sliding bolt 16, and is provided with a slot 25, which fits over and engages a pin in the operating-lever 21.

The trigger 26 is pivoted in the frame of the pistol in front of the magazine, and is provided with the ordinary trigger-spring 27, for normally holding the trigger in its forward position. A link 28, pivoted to the upper part of the trigger 26 and to the operating-lever 21, forms a permanent connection between said trigger and the operating-lever. By means of this construction, when the trigger 26 is pulled, the operating-lever and the sliding bolt will be moved forward. When the trigger is released, the trigger-spring 27 will move the parts back to their normal position.

As shown most clearly in Figs. 5 to 8, I provide an extractor-hook 30, which is loosely mounted on the side of the sliding bolt 16 by means of slots, which are engaged by small screws, as 31. The end of the ejector-hook 30 is arranged to fit into a small recess 32 at the side of the firing-chamber. In a firearm as thus constructed the normal position of the parts is illustrated in Fig. 1. When the trigger 26 is pulled, the operating-lever 21 will be turned, forcing forward the sliding bolt 16.

When the sliding bolt 16 has reached the forward limit of its travel, the surfaces 22 and 23 of the operating-lever will be brought into engagement with the corresponding surfaces upon the sliding bolt, locking the bolt in its forward position some time before the operating-lever is moved into engagement with the sear or detent. Inasmuch as the surfaces 22 and 23 are concentric with the pivot of the operating-lever, the continued motion of the operating-lever will bring the lever into engagement with the sear or detent, but will not move the sliding bolt. During the travel of the sliding bolt the firing-pin will be withheld by the sear or detent 29. When the operating-lever is brought into engagement with the sear or detent, the firing-pin will be released and the cartridge will be exploded.

When the pistol is fired, the operating parts will have assumed substantially the position illustrated in Fig. 3, and it is to be noted that the surfaces 22 and 23 of the operating-lever will be in engagement with the corresponding surfaces upon the sliding bolt, and that the sliding bolt will be locked or held in its forward position, so that the recoil cannot possibly throw the same back, as the sliding bolt and the operating-lever will form substantially a wedging joint, transmitting the entire recoil directly to the frame of the pistol.

When the trigger is released, the parts will be moved back under the tension of the trigger-spring 27, and the slot 25 in the retracting-link 24 will allow the required amount of lost motion to move the surfaces 22 and 23 out of engagement with the sliding bolt, the parts first assuming the position illustrated in Fig. 4 and then moving freely back under tension of the trigger-spring to their normal position, as in Fig. 1.

As illustrated in Fig. 8, the framing of the pistol is provided with an outlet-chamber 350, having a shoulder 36 near its lower end for normally retaining the cartridges in position.

When the sliding bolt 16 is in its rear position, the extractor-hook 30 will be brought into engagement with a shoulder 37 in the pistol-framing and will be thrown forward so as to be well front of the cartridge-rims. When the sliding bolt 16 is moved forward, the extractor-hook 30 will fit into the recess 32 and will reach the end of its travel before the end of the travel of the sliding bolt.

In practice I have found this loose connection for the extractor-hook an exceedingly desirable feature of construction, as the recess 32 can be made quite small and need not extend a great distance into the firing-chamber, and on this account I am enabled to construct a pistol which is much more nearly gas-tight than in constructions in which the extractor-hook is rigidly secured upon the sliding bolt. It is also to be noted that by means of this construction the sliding bolt will start back and will have acquired a considerable amount of momentum before the extractor-hook comes into contact with the rim of the shell, and I have found in practice that where this construction is employed the tendency of the cartridges to stick in the firing-chamber will be overcome.

When the sliding bolt is drawn back, the extractor-hook 30 will engage the cartridge-rim at one side of the shell, and will turn the front end of the shell out of engagement with the shoulder 36, so that the magazine-spring will force the shell out of the pistol, as illustrated in Fig. 8, bringing the succeeding cartridge in position to be acted upon.

When the pistol is to be put away or not to be used for a time, it is desirable to provide a cover for the ejector-opening, so as to prevent dust from accumulating upon the operating mechanism, and for this purpose I preferably provide a slide or cover, which is opened automatically when the pistol is fired.

Referring to Figs. 5 to 7, 38 designates a slide or cover, which is normally held open by means of a spring 39. At its forward end the cover 38 is provided with a catch or detent 40, which is arranged to engage with a spring-catch 41. The spring-catch 41 is offset or provided with a shoulder 42, located in the path of the extractor-hook 30. By means of this construction, when the sliding bolt 16 is moved forward to fire the pistol the extractor-hook 30 will throw back the spring-catch 41, as illustrated in Fig. 6, allowing the slide to move back, or open under the tension of the spring 39.

I am aware that many changes may be made in the construction of magazine-firearms by those who are skilled in the art, and that certain parts of my invention can be used in different combinations and in different locations without departing from the scope of my invention as expressed in the claims. I do not

wish, therefore, to be limited to the construction which I have shown and described; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

5 1. In a magazine-firearm, the combination of a sliding bolt arranged to feed a cartridge into the firing-chamber, an operating-piece for the bolt, said bolt and said operating-piece having engaging surfaces for locking the slide 10 in its forward position, and a pivoted trigger permanently connected to said operating-piece, substantially as described.

2. In a magazine-firearm, the combination of a sliding bolt arranged to feed a cartridge 15 into the firing-chamber, and an operating-lever socketed into and pivoted in the frame of the firearm, said bolt and said operating-lever being provided with engaging surfaces for locking the bolt in its forward position, a pivoted trigger, and a link permanently connecting 20 the trigger and the operating-lever, substantially as described.

3. In a magazine-firearm, the combination of a sliding bolt arranged to feed a cartridge 25 into the firing-chamber, an operating-piece for the bolt, said bolt and said operating-piece having engaging surfaces for locking the bolt in its forward position, a loose connection between the bolt and the operating-piece for retracting the bolt, and a pivoted trigger connected permanently to the operating-piece, 30 substantially as described.

4. In a magazine-firearm, the combination of a sliding bolt arranged to feed a cartridge 35 into the firing-chamber, a pivoted operating-lever for said bolt, said bolt and said operating-lever being provided with engaging surfaces for locking the bolt in its forward position, a slotted link loosely connecting said 40 bolt and said lever, a pivoted trigger and a link permanently connecting the trigger and the operating-lever, substantially as described.

5. In a magazine-firearm, the combination of a sliding bolt, a pivoted operating-lever for 45 the bolt, said bolt and said lever being provided with engaging surfaces for locking the bolt in its forward position, and a spring-pressed firing-pin mounted in the sliding bolt, a sear or detent for withholding the firing-pin 50 located in the path of movement of the operating-lever, and a slotted link connecting the bolt and lever for withdrawing the bolt, substantially as described.

6. In a magazine-firearm, the combination 55 of a sliding bolt arranged to feed a cartridge into the firing-chamber, a pivoted operating-lever for said bolt, a pivoted trigger and a link permanently connected to said trigger and said lever, the parts being arranged so 60 that the bolt will be moved forward when the trigger is pulled, substantially as described.

7. In a magazine-firearm, the combination of a sliding bolt arranged to feed a cartridge 65 into the firing-chamber, a pivoted operating-lever for said bolt, a pivoted trigger, a trigger-spring, and a link permanently connected to said trigger and said lever, the parts being arranged so that the bolt will be moved forward 70 when the trigger is pulled, and will be moved back by the trigger-spring when the trigger is released, substantially as described.

8. In a magazine-firearm, the combination of a frame, a spring-pressed cover-slide, a 75 sliding bolt arranged to feed a cartridge into the firing-chamber, and a catch for holding the cover-slide closed, said catch being arranged in the path of the movement of the sliding bolt, substantially as described.

In testimony whereof I have hereunto set 80 my hand in the presence of two subscribing witnesses.

WILLIAM H. GATES.

Witnesses:

LOUIS W. SOUTHGATE,
PHILIP W. SOUTHGATE.