

H. B. FEBIGER.

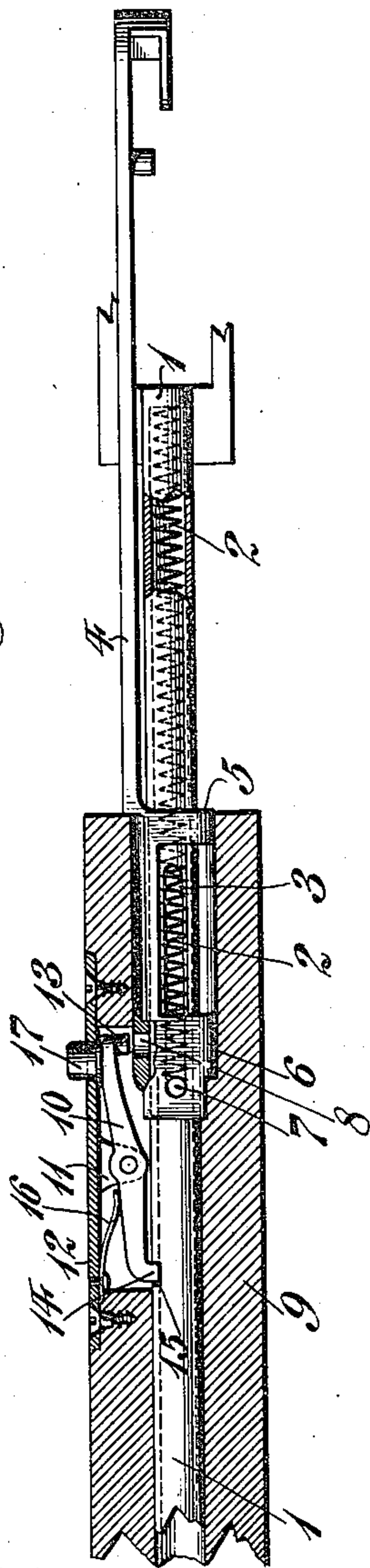
FIREARM.

APPLICATION FILED JUNE 3, 1908.

908,553.

Patented Jan. 5, 1909.

Fig. 1.



Witnesses

L. Rouville,
H. G. Dieterich

Fig. 2.

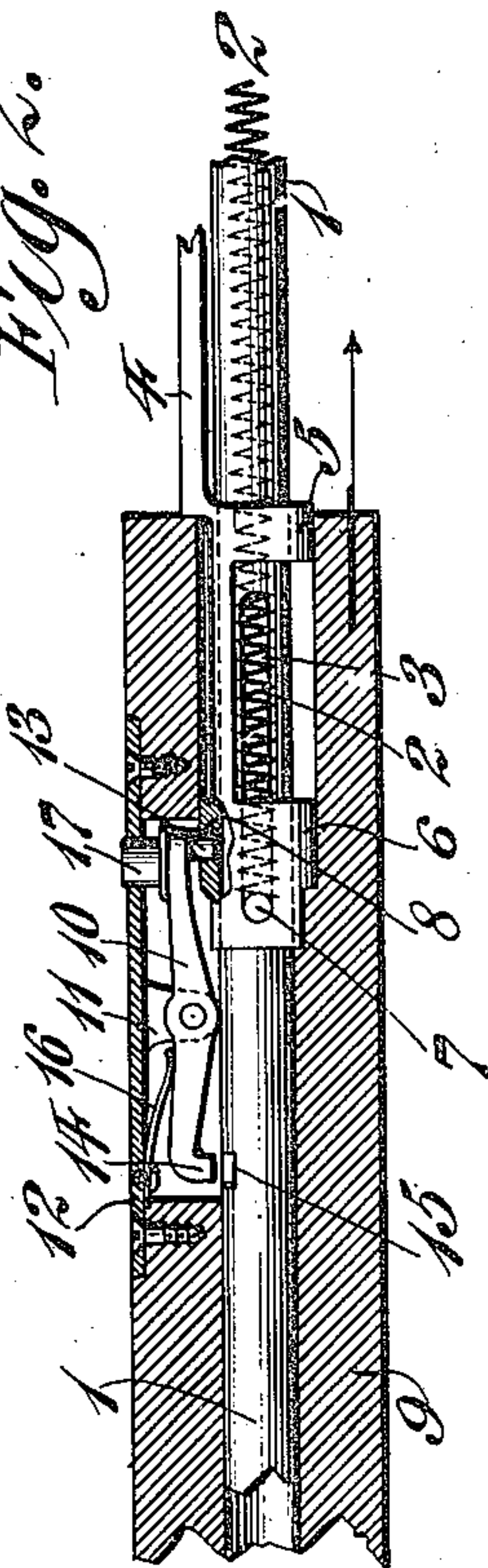


Fig. 4.

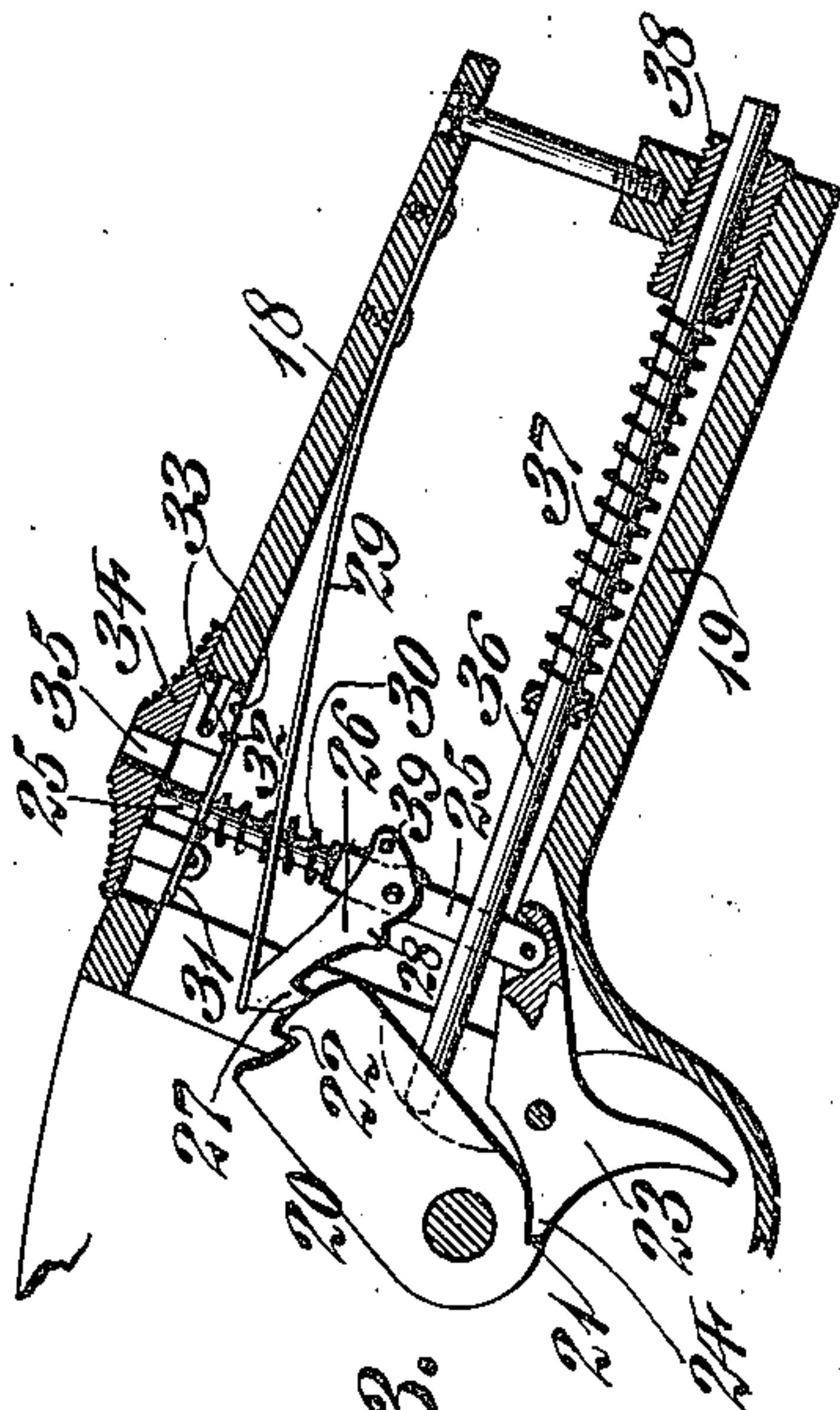
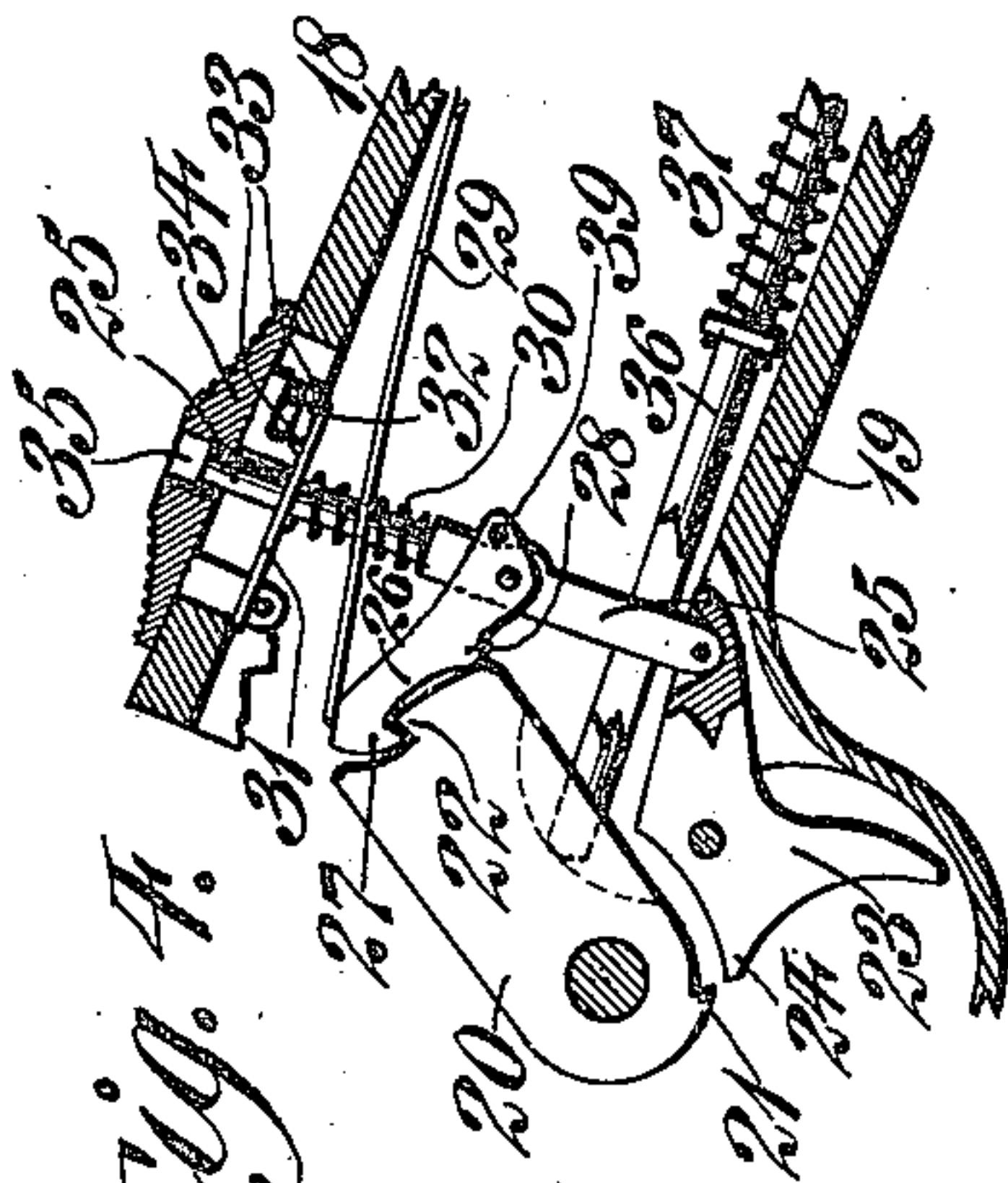


Fig. 3.

Inventor

Henry B. Febiger.

By

Wiedersheim & Fairbanks
Attorneys

UNITED STATES PATENT OFFICE.

HENRY B. FEBIGER, OF NEW ORLEANS, LOUISIANA, ASSIGNOR OF ONE-EIGHTH TO HENRY H. BERLIN, ONE-EIGHTH TO PETER F. PESCU, ONE-FOURTH TO JOHN C. FEBIGER, JR., AND ONE-EIGHTH TO SAMUEL F. HEASLIP, ALL OF NEW ORLEANS, LOUISIANA.

FIREARM.

No. 908,553.

Specification of Letters Patent.

Patented Jan. 5, 1909.

Application filed June 3, 1908. Serial No. 436,429.

To all whom it may concern:

Be it known that I, HENRY B. FEBIGER, a citizen of the United States, residing at New Orleans, parish of Orleans, State of Louisiana, have invented a new and useful Firearm, of which the following is a specification.

My invention relates to a new and useful fire arm and consists of an automatic firing means with means for inserting or "pumping in" the first cartridge to firing position and for ejecting a defective cartridge at any time and replacing the same with the next succeeding cartridge by the "pumping" action.

It further consists of a lock for connecting the action slide with the slide handle when it is desired to impart a forward and back movement or "pumping" in order to feed the first cartridge into the barrel chamber or eject a defective cartridge and replace it with the next succeeding one, said lock serving to stationarily lock the slide handle at other times.

It further consists of a new and novel lock for the hammer whereby the following down of the same in the automatic action is prevented.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

Figure 1 represents a partial sectional and partial plan view of a portion of a fire arm embodying my invention. Fig. 2 represents a partial sectional and partial plan view of some of the portions shown in Fig. 1 with the parts in a different position therefrom. Fig. 3 represents a sectional view of a portion of the firing mechanism. Fig. 4 represents a sectional view showing the parts in different positions from that shown in Fig. 3.

In the fire arms now in use and upon the market, especially in that class where it is necessary to manually operate certain parts, in order to load, considerable time is consumed in this operation. My invention is designed to overcome this defect and in which I provide means for automatically operating a fire arm and means whereby I am enabled to manually operate certain parts or "pump in" the first cartridge or eject a defective cartridge and load the next succeeding one.

In the drawings, I have shown a construction for carrying out my invention but it will be evident that the arrangement of the parts may be varied, changes may be made in the

construction and other instrumentalities may be employed which will come within the scope of my invention and I do not therefore desire to be limited in every instance to the exact construction as herein shown and described but desire to make such changes therein as may be necessary.

1 designates the slide handle guide or tube which is connected in any suitable manner to a suitable stationary part of the fire arm such as the barrel and which is thus adapted to be held, at all times, stationary. Within the tube is a coiled or other suitable spring and at a suitable point in the wall of the tube 1, I provide a slot 3.

4 designates the action slide which is provided with suitable means for engagement with the usual breech-block and which is adapted to have a portion thereof mounted on and slidable upon the said handle tube 1, said action slide 4, in the present instance, being provided with collars 5 and 6 for this purpose while in one of these, in the present instance, the collar 6, I mount a pin 7 which passes through and is movable in the slot 3 in the tube 1 and engages with the said spring 2 for purposes to be hereinafter described. At a suitable point in the action slide 4, I provide an opening 8.

9 designates a slide handle which is movably mounted on the slide handle tube 1 and in one side of which I pivotally connect my lock, which consists of a locking bar 10 which is pivoted, in the present instance, in ears 11 projecting from the plate 12, which is screwed, or otherwise secured to, the slide handle 9 and completely closes the space or opening formed in said slide handle for the reception of the lock. At suitable points upon the opposite sides of the fulcrum of this locking lever 10, I provide pins or lugs 13 and 14 respectively; the former of which is adapted to enter the opening 8 in the action slide 4 at the proper time while the other pin 14 is adapted at the proper time to be seated in a recess or opening 15 formed in the wall of the slide handle tube 1, it being understood that said pin 14 is normally held in the recess 15 by any suitable means, in the present instance, by means of the spring 16 which will thus normally hold the pin 13 away from or out of the opening 8. A suitable button 17 projects through an opening in the plate 12 for engagement by the hand of the operator

in order to overcome the tension of the spring 16 and to change the position of the locking lever 10 and thus of the pins 13 and 14.

The operation of the parts just described will be as follows:—The cartridges are placed in a magazine which is of any desired form such as a clip or box construction and is inserted in the receiver in any desired and proper manner. It is now necessary to load the first cartridge and in order to do this, I press in the button 17 releasing the pin 14 from engagement with the walls of the opening 15 and causing the pin 13 to engage with the opening 8 in the action slide 4. This will lock the action slide firmly with the slide handle 9 and by pulling back upon the latter the action slide 4 is moved rearwardly throwing back the breech-block and permitting the feeding up of the first cartridge into position. By this rearward movement of the action slide the pin 7 moving in the slide 3 will compress the spring 2 in the slide handle tube 1, so that when the handle 9 moves forwardly the spring 2 returns the parts to their normal position, and the cartridge will have been fed into its proper position in the barrel ready for firing. As the parts are returned to their normal position, the button 17 having been released, the spring 16 throws out the pin 13 from the opening 8 and causes the pin 14 to reengage with the opening 15, thus positively locking the slide handle to the slide handle tube 1 which, as before stated, is held stationary. The fire arm having been discharged, automatically recoils the parts, throwing back the breech-block and with it the action slide 4, which slides on the tube 1, at this time, without moving the slide handle, which is locked to the tube 1, and ejecting, in any suitable manner, the discharged cartridge and feeding up the next adjacent cartridge which is thus placed in position in the barrel for firing. The spring 2 has been compressed by the pin 7 carried by the slide 4 and will return the slide to its normal position ready for the next action, this action being repeated automatically in each instance. If at any time I find that one of the cartridges is defective or will not discharge, I can repeat the pumping action, that is to say, I can press in the button 17 locking the action slide 4 with the slide handle 9 and releasing the handle from the tube 1 and by pulling back the slide handle, the defective cartridge is ejected and the next succeeding one is fed to proper position ready for firing. The automatic action can then continue by releasing the button 17 and the parts are returned to their normal position, that seen in Fig. 1, with the slide handle 9 locked to the slide handle tube 1 and the slide 4 free to slide on the tube 1.

I have shown in Fig. 2, the position of the parts when the pumping action is employed. In order to positively lock the hammer tem-

porarily and prevent return of the same, before the parts have assumed their proper position, I have shown in Figs. 3 and 4 a new and useful construction which I have found in practice operates successfully and in which 18 designates the upper tang of the frame or receiver and 19 the lower. 20 designates the hammer which is suitably pivoted and is provided with the trigger engaging notch 21 and at a suitable point with a notch 22. 23 designates a trigger which is pivotally supported at a suitable point with respect to the hammer 20 and is provided with a sear 24 adapted to engage with the hammer notch 21 at the proper time. Bearing upon the trigger 23 and upon the opposite side of the fulcrum from that upon which the sear 24 is situated is a rod 25 upon which is pivotally mounted a clutch 26 which is provided with a tooth 27 adapted at the proper time to engage with the notch 22 on the hammer 20, said clutch being also provided with a cam face or projection 28 which is adapted to fulcrum on a suitable portion of the hammer 20 at the proper time for reasons to be hereinafter described, said clutch being suitably actuated and held in proper position by the spring 29. Mounted on the rod 25 is a spring 30 which abuts a plate 31 through which the end of the rod passes, said plate being provided with a lug 32 adapted to enter suitable recesses or openings 33 in the safety slide 34 which is also provided with an opening 35 into which the rod 25 is adapted to enter during the action of firing. 36 designates a main spring rod upon which is mounted a coiled or suitable spring 37, said main spring rod 36 passing through a bushing 38 which is in threaded engagement with the walls of the opening formed in any suitable part of the device, in the present instance, in an off-set of the lower tang 19 whereby it will be seen that the position of the bushing 38 may be adjusted thus adjusting the tension of the main spring 37, as desired, the advantages of which are that the spring may be made to suit conditions, in order to provide any desired blow. 39 designates a pin or stop which is adapted to prevent improper movement of the clutch 26 by engaging with a shoulder or other suitable portion of the rod 25 so that the spring 29 cannot depress said clutch 26 beyond a certain point, the advantages of which are evident. The operation of these parts just described is as follows:—When the safety slide 34 is in the position seen in Fig. 3, the trigger is locked and cannot be moved. In this position the lug 32 on the plate 31 engages with one of the openings or recesses 33 in said safety slide. When, however, it is desired to fire the arm the safety slide 34 is moved forward in the position seen in Fig. 4, the lug 32 engaging with the other recess 33 and thus locking the slide in position, the opening 35 of which is now in line

with the trigger rod 25. In the position seen in Fig. 3 the hammer and trigger are ready for firing, that is to say, the sear 24 of the trigger is in engagement with the notch 21 of the hammer and by a rearward pull on the trigger 23 and with the safety slide forward, that is, in the position seen in Fig. 4, the sear 24 is released from the notch 21 and the main spring 37 moves over the hammer 20 discharging the fire arm, the recoil from which throws back the hammer 20 through action of the action slide 4 previously described and as the trigger has been pulled rearwardly, that end of the same, which is in contact with the rod 25, is elevated, raising the said rod and causing the end of the same to enter the opening 35 in the safety slide 34 and at the same time elevating the pivotal point of the clutch 26 throwing the tooth 27 thereof above and over to engage with the notch 22 on the hammer 20 as the latter is thrown back, so that the said hammer will be temporarily locked. When, however, the trigger is released slightly, the end of the same is lowered carrying with it the rod 25 so that the pivotal point of the clutch 26 is also lowered, which causes the cam face 28 of the clutch to fulcrum on the heel of the upper portion of the hammer 20, which will thus raise the free end or that carrying the tooth 27 of the clutch, against the tension of the spring 29 so that said tooth 27 will be disengaged from the notch 22 and the upper portion of the hammer will be thrown forward slightly, but in the meantime the sear 24 of the trigger 23 will have been moved into the path of the notch 21 so that said sear 24 will engage with said notch 21 and the hammer is locked, ready for the next act of shooting, the parts being in the position seen in Fig. 3.

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

1. In a device of the character described, a slide handle guide, a slide handle, an action slide and means carried by said handle for locking the same either with said slide or with said guide.

2. In a device of the character described, a slide handle guide, a slide handle, an action slide, and means normally locking said handle and guide and adapted to be actuated to release said guide and to lock said handle and slide.

3. In a device of the character described, a slide handle guide, a slide handle, an action slide, and means for locking either said handle and guide or said handle and slide.

4. In a device of the character described, a slide handle guide, a slide handle, an action slide, means normally locking said handle and guide and adapted to be actuated to release said guide and to lock said handle and slide, and means for holding said locking means in normal position.

5. In a device of the character described, a slide handle guide, a slide handle, an action slide, means normally locking said handle and guide and adapted to be actuated to release said guide and to lock said handle and slide, and a spring for holding said locking means in normal position.

6. In a device of the character described, a slide handle guide, a slide handle, an action slide, means for locking either said handle and guide together or said handle and slide, and means for returning the parts to their normal position.

7. In a device of the character described, a slide handle guide, a slide handle, an action slide, means for locking either said handle and guide together or said handle and slide, and a spring for returning the parts to their normal position.

8. In a device of the character described, a slide handle guide, a slide handle, an action slide, and a rocking lever normally locking said handle and guide and adapted to be actuated to disengage said handle and guide and to lock said handle and slide together.

9. In a device of the character described, a slide handle guide, a slide handle, an action slide, a rocking lever normally locking said handle and guide and adapted to be actuated to disengage said handle and guide and to lock said handle and slide together, and a spring holding and returning said lever to its normal position.

10. In a device of the character described, a slide handle tube, a slide handle, an action slide, means for locking either said handle and tube together or said handle and slide together, and a spring in said tube adapted to be engaged by said slide for compressing the same.

11. In a device of the character described, a slide handle tube, a slide handle, an action slide, a rocking lever normally locking said handle and tube and adapted to be actuated to disengage the same and to lock said handle and slide, means for holding and returning said lever to normal position, and a spring in said tube engaged by said slide for compressing the same.

12. In a device of the character described, a hammer, a trigger adapted for engagement with said hammer and a clutch for temporary engagement with said hammer which is raised and lowered by said trigger, said clutch having a movable pivot.

13. A hammer, a trigger adapted for engagement with said hammer and a clutch for temporary engagement with said hammer, said clutch having a movable pivotal point, operated, by said trigger, for throwing said clutch into and removing the same from engagement with said hammer.

14. A hammer, a trigger adapted for engagement with said hammer and a clutch for engagement with said hammer, said clutch

having a movable pivotal point operated by said trigger, for throwing said clutch into and removing the same from engagement with said hammer and resilient means bearing on said clutch for properly holding the same.

15. In a device of the character described, a hammer, a trigger adapted for engagement with said hammer, a clutch for temporary engagement with said hammer and adapted to be raised and lowered by said trigger, and a cam face on said clutch adapted to fulcrum on a suitable portion of said hammer for disengaging the same from said hammer.

16. In a device of the character described, a hammer, a trigger adapted for engagement with said hammer, a clutch for temporary engagement with said hammer, a support for said clutch actuated by said trigger to raise and lower the same, and a cam on said clutch adapted to fulcrum on a suitable portion of said hammer for actuating said clutch independent of the movement of its support.

17. In a device of the character described, a hammer, a trigger adapted for engagement with said hammer, a clutch for temporary engagement with said hammer, a support for said clutch actuated by said trigger to raise and lower the same, a cam on said clutch adapted to fulcrum on a suitable portion of said hammer for actuating said clutch independent of the movement of its support, and resilient means for holding said clutch in proper position.

18. In a device of the character described, a hammer, a trigger adapted for engagement with said hammer, a clutch for temporary

engagement with said hammer, a rod raised and lowered by the trigger and carrying said clutch, a spring bearing on said clutch for holding the same in proper position, and a cam on said clutch adapted to fulcrum on a suitable part of said hammer for actuating said clutch.

19. In a device of the character described, a hammer, a trigger adapted for engagement with said hammer, a clutch for temporary engagement with said hammer, a rod raised and lowered by the trigger and carrying said clutch, a spring bearing on said clutch for holding and returning same to its proper position, a stop for preventing improper movement of said clutch, and a cam on said clutch adapted to fulcrum on a suitable part of said hammer for actuating said clutch.

20. In a device of the character described, a hammer, a trigger adapted for engagement with said hammer, a clutch for temporary engagement with said hammer, a notch on said hammer, a tooth on said clutch adapted to engage with said notch at the proper time, a rod raised and lowered by the trigger and carrying said clutch, a spring bearing on said clutch for holding the same in proper position, and a cam on said clutch adapted to fulcrum on a suitable part of said hammer for actuating said clutch to cause said tooth to engage with and disengage from said notch.

HENRY B. FEBIGER.

Witnesses:

F. A. NEWTON,
WM. CANER WIEDERSEIM.