Dec. 10, 1929. W. R. BLUEHDORN 1,738,751

AUTOMATIC PISTOL

Filed Dec. 21, 1927

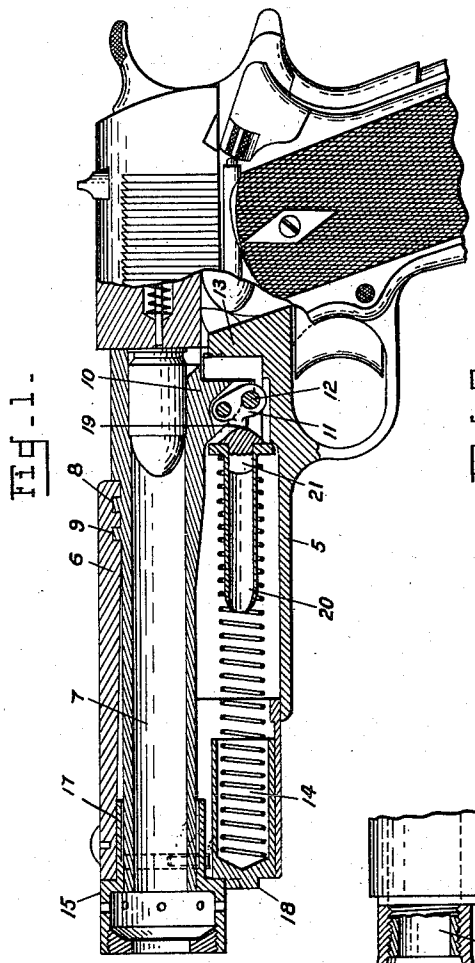


Fig-1.

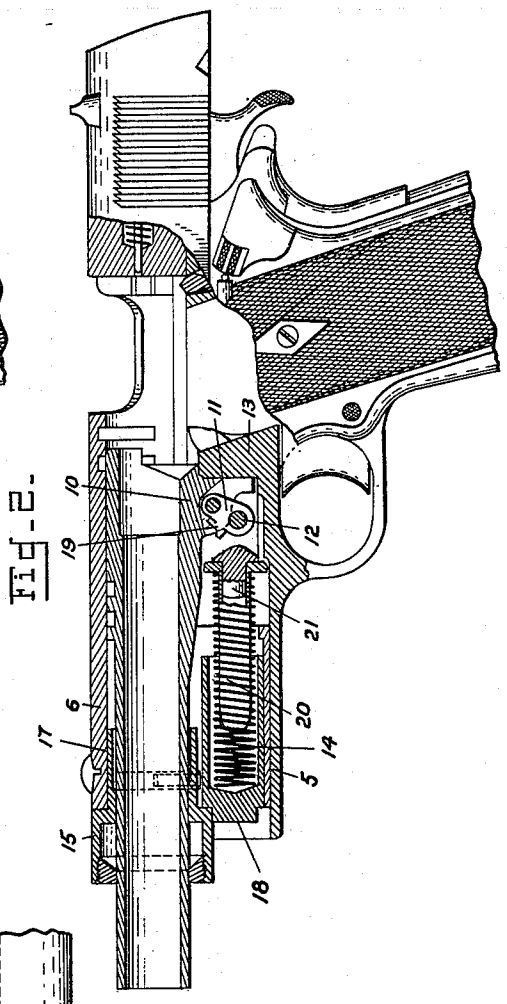


Fig-2.

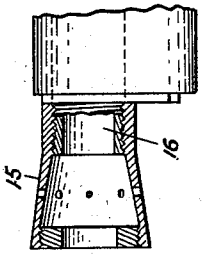


Fig-3.

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UNITED STATES PATENT OFFICE

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AUTOMATIC PISTOL

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(GRANTED UNDER THE ACT OF MARCH 3, 1883, AS AMENDED APRIL 30, 1928; 370 O. G. 757)

The invention described herein, if patented, may be manufactured and used by or for the Government for governmental purposes without the payment to me of any royalty thereon.

This invention relates to automatic pistols.

In most firearms those members which are subject to the action of recoil have their energy diminished by cushioning means which supply the reaction for counter recoil or by actuating parts of the firing, feeding and other mechanisms.

In the .45 caliber Colt automatic pistol the barrel during its rearward and downwardly swinging movement to effect its unlocking from the slide performs no additional functions and is brought up against the receiver with great force. During the counterrecoil movement of the barrel and slide the same stop lug on the barrel through which its rearward movement is arrested is brought up against the pivot pin of the slide stop to arrest the forward movement of both barrel and slide. As a result the metal of the stop lug becomes crystallized and soon gives away.

The object of the present invention is to provide means susceptible of incorporation in existing pistols, to check the force of the recoil and counterrecoiling movements.

With the foregoing and other objects in view, my invention resides in the novel arrangement and combination of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

A practical embodiment of the invention is illustrated in the accompanying drawings, wherein:

Fig. 1 is a fragmentary view in side elevation, partly in section of a pistol constructed in accordance with the invention, the parts being in normal position;

Fig. 2 is a similar view showing the position of the parts at the end of recoil;

Fig. 3 is a detail view showing a modified form of muzzle attachment.

Referring to the drawings by numerals of reference:

The standard Colt caliber .45 automatic pistol to which the improvements are to be applied comprises a receiver 5, a reciprocating slide 6 mounted on the receiver and a barrel 7. The barrel is provided with transverse locking ribs 8 which engage in grooves 9 in the slide to positively lock these two members when in firing position. The rear end of the barrel is formed with a depending lug 10 bifurcated to pivotally receive a link 11 which establishes connection with the receiver through the slide stop pivot 12. By this arrangement the barrel is movable a limited distance lengthwise and in a vertical plane to accomplish disengagement or engagement of the locking ribs and the grooves.

The barrel after being unlocked, is arrested when the rear face of its lug 10 strikes an abutment 13 of the receiver. The slide, which constitutes a breech bolt, continues to the rear to effect ejection, cocking and loading and energizes the spring 14 which restores it to battery. When nearing completion of its counter recoil stroke, the slide encounters the rear portion of the barrel and forces the barrel forward and upward to locking position. The joint forward movement of the barrel and slide is arrested when the barrel lug 10 strikes the stop pivot 12. The barrel lug in taking the blows to arrest recoil and counterrecoil of the barrel soon becomes crystallized and breaks off.

In order to correct this defect it is proposed to associate a gas check 15 with the recoiling members. The gas check may be attached to an extension 16 on the barrel as seen in Fig. 3 but preferably it is formed as illustrated in Figs. 1 and 2 to include the bushing 17 which serves to support the barrel and engage the plug 18 of the return spring 14. The bushing 17 is removably attached to the slide and moves with it. The gas check functions in a well known manner to trap the issuing gases and utilizes their energy to impart a forward pressure in opposition to re-

coil. This will reduce the blow of the barrel lug 10 against the receiver abutment 13.

For the purpose of cushioning the return of the barrel and slide into battery an extension 19 is formed on the forward face of the link 11 and the return spring guide 20 is modified by being plugged as at 21 to form a striking surface for the extension 19. In this manner the return spring which restores the gun to battery is conveniently utilized to check the force of the very members it is moving. It will be obvious that the extension 19 may be incorporated in the barrel lug and it is only necessary that such means be associated with a member that is returning into battery.

The foregoing improvements in addition to serving for the purpose specified will prove of considerable advantage in permitting rapid and correct reaiming of the pistol.

I claim:

1. A firearm embodying a receiver, a breech bolt slide reciprocally mounted on the receiver, a return spring for said slide, front and rear movable guides confining said spring, a gas check removably attached to the slide and establishing connection with the front guide, a barrel forwardly supported in said gas check, a link connecting the rear of the barrel with the receiver for controlling movement of the barrel into and out of locking engagement with the breech bolt slide and means engageable with the rear guide whereby the barrel may be eased into battery.

2. A firearm embodying a receiver, a breech bolt slide reciprocably mounted on the receiver, a return spring for said slide, a barrel movable out of and into locking engagement with the slide during the initial and final movement of the slide, a gas check on the slide and means whereby the barrel and slide are eased into battery through a counteraction on the return spring.

3. A firearm embodying a barrel and a breech bolt slide each having a recoil and counter recoil movement, a return spring energized on recoil, a gas check associated with one of the recoilable members and acting on both of them and means associated with the barrel for counteraction by the return springs as the barrel arrives in battery.

4. A firearm embodying a receiver, a breech bolt slide reciprocally mounted on the receiver, a return spring for said slide, a gas check attached to the slide and establishing connection with the return spring and a barrel forwardly supported in said gas check and partaking of the initial and final movement of the breech bolt slide.

5. A firearm embodying a receiver, a breech bolt slide reciprocally mounted on the receiver, a return spring energized by the slide on recoil, a movable rear guide for said spring, a barrel, a link connection between the barrel and receiver for moving the barrel into and out of locking engagement with the slide and an extension on the forward face of the link connection engageable with the rear guide as the barrel returns into battery.

6. In a firearm, a reciprocable breech bolt, a return spring energized during recoil of the bolt and a barrel movable into battery by the bolt and an element associated with the barrel to compress the return spring as the barrel arrives in battery.

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