Nov. 27, 1928. 1,693,530

W. S. SPENCER

PISTOL

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Fig. 1.

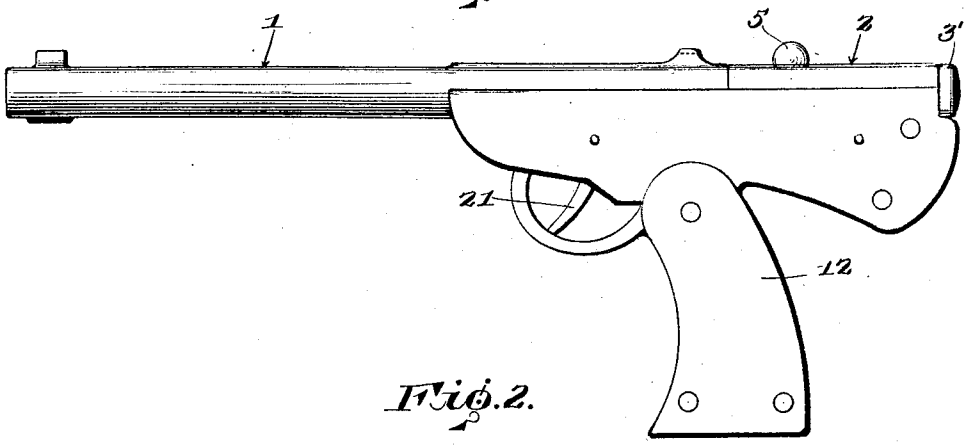
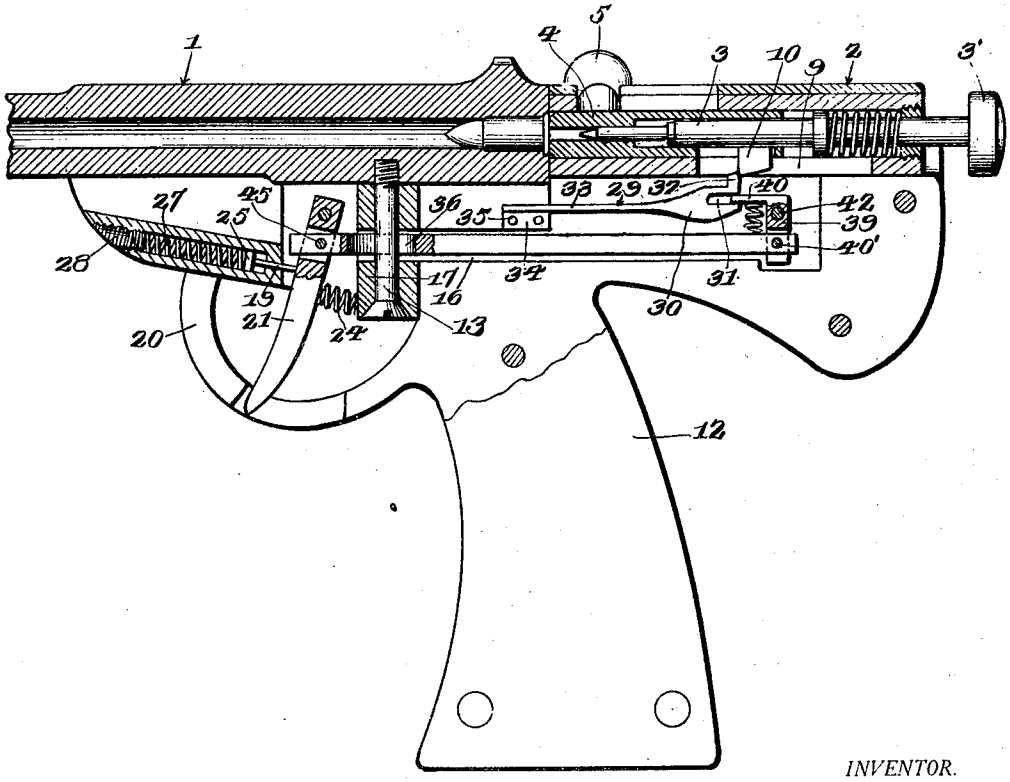



Fig. 2.




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Fig. 3.

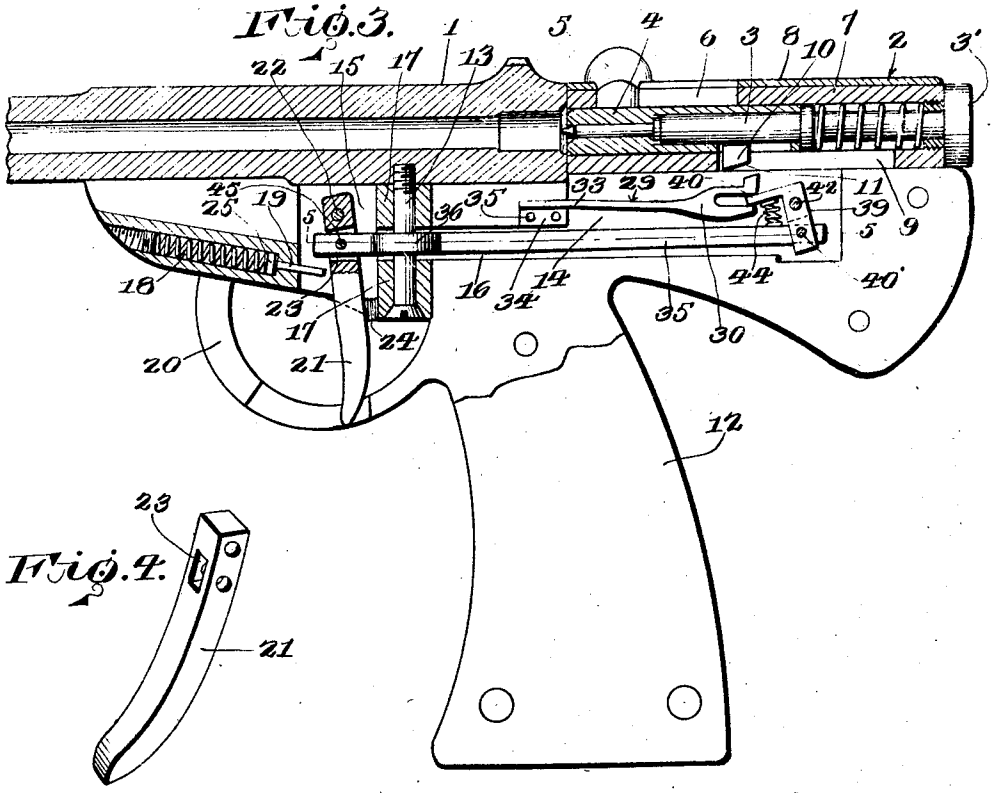



Fig. 4.




Fig. 5.

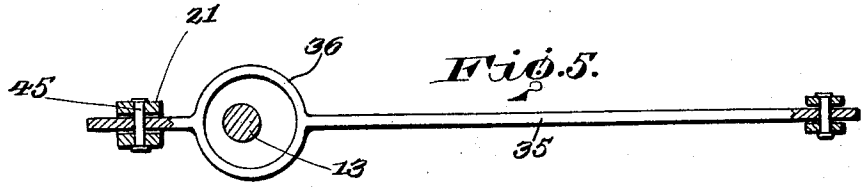



Fig. 6.

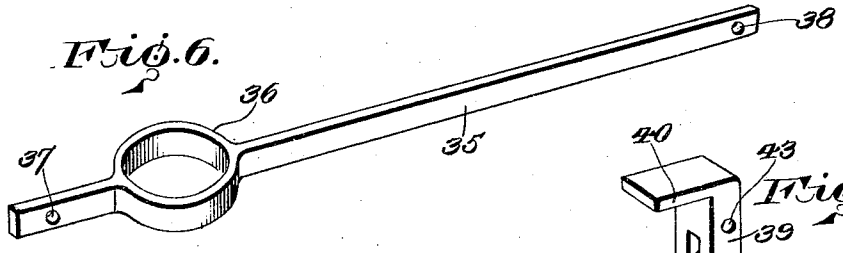



Fig. 7.




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# UNITED STATES PATENT OFFICE.

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## PISTOL.

Application filed September 28, 1927. Serial No. 222,661.

This invention relates to firearms, more particularly to pistols, and has for its object to provide, in a manner as hereinafter set forth, a single shot bolt action pistol.

A further object of the invention is to provide, in a manner as hereinafter set forth, a trigger mechanism for use in connection with a bolt action and whereby the mechanism may be employed in connection with any length of barrel.

A further object of the invention is to provide, in a manner as hereinafter set forth, a pistol handle provided with a trigger mechanism applicable to all bolt action rifle actions.

Further objects of the invention are to provide, in a manner as hereinafter set forth, a single shot bolt action pistol which is comparatively simple in its construction and arrangement, strong, durable, compact, thoroughly efficient when used, readily assembled, capable of being employed with bolt action of rifles, and comparatively inexpensive to manufacture.

With the foregoing and other objects in view the invention consists of the novel construction, combination and arrangement of parts as hereinafter more specifically described, and illustrated in the accompanying drawings, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which fall within the scope of the claims hereunto appended.

In the drawings wherein like reference characters denote corresponding parts throughout the several views:—

Figure 1 is a side elevation of a single shot bolt action pistol in accordance with this invention.

Figure 2 is a longitudinal sectional view thereof, with the firing pin in set position.

Figure 3 is a similar view with the firing pin released.

Figure 4 is a perspective view of the trigger forming an element of the mechanism.

Figure 5 is a top plan view, partly in section, of the holding and releasing device for the sear.

Figure 6 is a perspective view of the bar forming an element of the releasing device for the sear.

Figure 7 is a perspective view of the holding element forming a part of the holding and releasing device for the sear.

Referring to the drawings in detail 1 denotes a barrel of any appropriate length and of any suitable inner and outer diameter Arranged in alignment therewith and abutting against the rear thereof is a firing pin setting mechanism of the bolt action type referred to generally at 2 and it includes a spring controlled firing pin 3 provided at its rear end with a head 3′, a tubular sliding bolt 4 which carries the firing pin and a fixed housing 7 in which is arranged the bolt. The bolt 4 is formed with a lateral handle 5 extending through a lengthwise slot 6 provided in the casing 7. A slotted cover plate 8 is provided for said casing 7. The bottom of the casing 7 has a slot 9 forming a clearance for a detent 10 depending from the firing pin 3. The detent 10 has a beveled lower end 11. The foregoing elements are of known construction and are illustrated so as to show the adaptation therewith of a combined sear and trigger mechanism in accordance with this invention.

The handle or stock of the pistol is indicated generally at 7 and is coupled with the barrel 1 by a screw 13. The handle 12 is formed with a chamber 14, a recess 15, a passage 16 which leads from the chamber 14 and opens into a chamber 15. The handle 12 is formed with spaced superposed wall forming portions 17 which provide for a continuation of the passage 16. Extending through said portions 17 and across the passage 16 is the screw 13. The head of the screw 13 is countersunk in the lower of the portions 17. The chamber 15 is arranged forwardly of the wall portions 17. The handle 12 forwardly of the chamber 15 is provided with a socket 18 and leading from the base of the latter to the chamber 15 is an opening 19. The handle 12 forwardly thereof and below the chamber 15 is provided with a guide 20 for the lower end of a trigger 21 and for the finger of the user.

The trigger mechanism not only includes the trigger 21 referred to, but also a sear and a combined holding and releasing device for the sear. The trigger 21 extends into the chamber 15 and has its upper end mounted on a pivot 22, and below the latter it is formed with an opening 23. Interposed between the trigger 21 and the

lower of the wall portions 17 is a controlling spring 24 for the trigger 21 which normally tends to force the lower part of the trigger forwardly. Arranged in advance of the trigger 21 is a cushioning plunger 25 therefor. The plunger 25 carries a stem 26, extending through the opening 19 and positioned in the path of the trigger 21, when the lower portion of the latter is moved forwardly due to the action of the spring 24. The plunger 25 is slidably mounted in the socket 18 and bears against a coiled controlling spring 27 mounted in the socket 18, and retained therein by a peripherally threaded closure plug 28 having threaded engagement with the wall of the socket 18.

The sear is referred to generally by the reference character 29 and is resilient. The sear 29 comprises a head 30 formed with a slot 31 and an upwardly extending lug 32, adapted to be positioned in the path of the detent 10 for the purpose of maintaining the firing pin in set position, as shown in Figure 2. The sear 29 further includes a resilient or flexible shank 33 carrying at one end the head 30 and at the other end a flange 34, which is fixedly secured by the holdfast devices 35, to one of the walls of the recess 15. The shank 33 extends lengthwise of the chamber 15 and the head 30 is arranged in such chamber below the slot 9 formed in the casing 7. The slot 31 extends lengthwise of the head 30 and opens at the rear end thereof.

The combined holding and releasing device for the sear 29 consists of a releasing bar 36 provided with an annulus 36 at a point between the vertical median and the forward end thereof. Each end of the bar 35 has an opening and which are indicated at 37, 38. The bar 35 is positioned in the passage 14, between the wall portions 17, extends into the chamber 15, and also to a point in proximity to the rear end of the chamber 14. Arranged within the chamber 14 and pivotally connected to the rear end of the bar 35 is a holding member consisting of a vertical arm 39 and a horizontally disposed arm 40 projects forwardly at right angles from the upper end of the arm 39. The arm 39 is bifurcated and straddles the rear end of the bar 35. The arm 39 is pivotally connected to the bar 35 by a pivot pin 40 which extends through the opening 38 and also through the openings 41 formed in the arm 39. Extending across the chamber 14, a substantial distance above the rear end of the arm 35 is a pivot 42 for the arm 39. The arm 39 is provided with an opening 43 for the passage of the pivot. The arm 40 of the holding member extends into the slot 31 formed in the head 30 of the sear 29. The holding member is spring controlled and for such purpose a controlling spring 44 is interposed between the arm 40 and the rear end of the bar 35. See Figures 2 and 3. The normal position of the combined holding and releasing device is as shown in Figure 2, whereby the springs 24 and 44 will maintain the arm 40 of the holding member in a horizontal position within the slot 31 of the sear 29 to maintain the latter in the position shown in Figure 2 whereby the lug 32 will be positioned forwardly of the detent 10 and arrest the forward movement of the firing pin 3 from set position.

The forward end of the bar 35 extends into the opening 36, formed in the trigger 21, and is pivotally connected to the latter, as at 45.

If the elements of the trigger mechanism are in the position shown in Figure 2 the lug 32 will be positioned in the path of the detent 10 and arrest action for the firing pin. The trigger 21 will also be held in the position shown in Figure 2, due to the action of the controlling spring 24, in connection with the action of the spring 44. If the trigger is pulled rearwardly, that is to say, the lower portion of the trigger, the rod 35 will be moved rearwardly, as indicated by the arrow, which action will shift the holding member on its pivot, so that the arm 40 will move downwardly carrying the head 30 therewith and shift the lug 32 clear of the path of the detent 10, under such conditions the firing pin will be released and the pistol will be discharged. After the discharge of the pistol and pressure on the trigger 21 is released, the parts of the trigger mechanism will assume the position shown in Figure 2. Now, if the firing pin is swung rearwardly, due to the action of the bolt, the detent rides over the lug 32, and after the detent 10 clears the lug 32 the latter will project upwardly into the slot 9 whereby it will be positioned in the path of the detent and retain the firing pin in set position.

The plunger 25, in connection with the spring 27, not only provides a cushioning movement for the lower portion of the trigger but also acts as a means to arrest the forward movement thereof.

It is thought the many advantages of a single shot bolt action pistol in accordance with this invention, can be readily understood, and although the preferred embodiment of the invention is as illustrated and described, yet it is to be understood that changes in the details of construction can be had which fall within the scope of the invention as claimed.

What I claim is:

1. In a firearm, in combination, a resilient, shiftable, longitudinally disposed sear lengthwise slotted at one end and including a lug at said end for extension in the path of a bolt action to releasably hold the latter in set position, a longitudinally disposed bodily shiftable releasing bar arranged below and in parallelism to said sear, a spring

controlled, pivoted holding member pivoted at one end to and overlapping one end of said bar, said member permanently extending into the slot of the lug for holding the sear in and for shifting it from the path of the bolt action, and a pivoted, spring controlled trigger pivotally connected to the other end of said bar for shifting the latter to provide for the pivoting of said member to shift the lug clear of the bolt action thereby releasing the latter.

2. In a firearm, in combination, a resilient, shiftable, longitudinally disposed sear lengthwise slotted at one end and including a lug at said end for extension in the path of a bolt action to releasably hold the latter in set position, a longitudinally disposed bodily shiftable releasing bar arranged below and in parallelism to said sear, a spring controlled, pivoted holding member pivoted at one end to and overlapping one end of said bar, said member permanently extending into the slot of the lug for holding the sear in and for shifting it from the path of the bolt action, a pivoted, spring controlled trigger pivotally connected to the other end of said bar for shifting the latter to provide for the pivoting of said member to shift the lug clear of the bolt action thereby releasing the latter, and a cushioning element for the return movement of the trigger.

3. In a firearm, in combination, a sear including a shank fixed at one end and having its other end provided with a head formed with a lengthwise slot and further provided with an upstanding lug for extension in the path of a bolt action to releasably hold said action in set position, an angle shaped, pivoted, spring controlled combined holding and releasing member for said sear and having one of its arms permanently extending into the slot of said head, and a trigger operated releasing bar pivotally connected to said member and providing means for rocking the same on its pivot to shift said lug of the sear out of the path of the bolt action to release the same.

4. In a firearm, in combination, a sear including a shank fixed at one end and having its other end provided with a head formed with a lengthwise slot and further provided with an upstanding lug for extension in the path of a bolt action to releasably hold said action in set position, an angle shaped, pivoted, spring controlled combined holding and releasing member for said sear and having one of its arms permanently extending into the slot of said head, a trigger operated releasing bar pivotally connected to said member and providing means for rocking the same on its pivot to shift said lug of the sear out of the path of the bolt action to release the same, a spring controlled trigger provided with a slot for the reception of one end of said bar, and means for pivotally connecting the bar to the trigger.

5. In a firearm, in combination, a resilient, shiftable, longitudinally disposed sear lengthwise slotted at one end and including a lug at said end for extension in the path of a bolt action to releasably hold the latter in set position, a trigger operated, longitudinally disposed releasing bar arranged below and in parallelism to said sear, and a spring controlled pivoted holding member pivotally connected at one end to and overlapping one of said bar, said member at its one end permanently extending into the slot of the sear for holding the lug in and for shifting it from the path of the bolt action on the shifting of the releasing bar.

6. In a firearm, a stock, a spring controlled trigger position therein, and resilent means position in the path of movement of and engagable with the trigger for cushioning the return movement thereof, said means mounted in the stock forwardly of the trigger.

7. In a firearm, a stock, a trigger extending therein, a controlling spring therefor positioned against the rear edge thereof, and resilient means positioned in the path of the forward edge of and engageable with the trigger for cushioning the return movement of the latter, said means slidably mounted in the stock forwardly of the trigger.

8. In a firearm, a trigger, and a spring controlled plunger positioned in advance of and in the path of and engageable with the trigger for cushioning the return movement of the latter.

In testimony whereof, I affix my signature hereto.

WALTER S. SPENCER.