C. B. TILDEN.

SINGLE TRIGGER MECHANISM FOR DOUBLE BARRELED GUNS.

APPLICATION FILED MAY 31, 1912

1,051,032.

Patented Jan. 21, 1913.

2 SHEETS—SHEET 1.

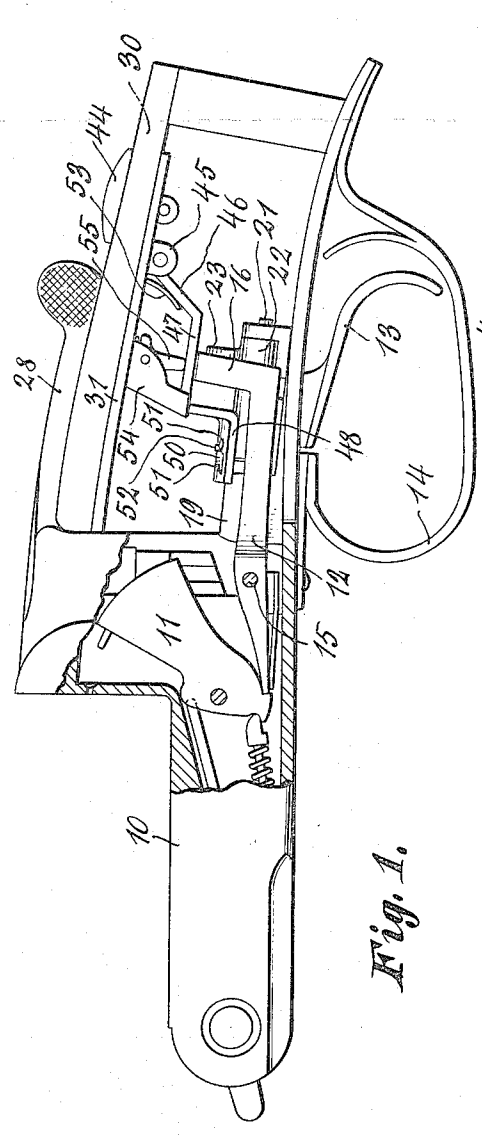

Fig. 1.

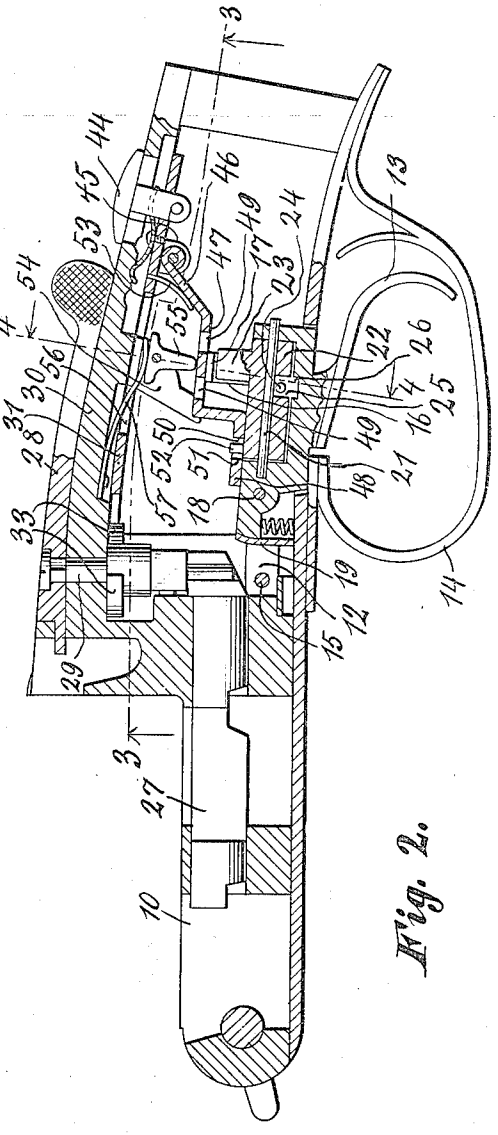

Fig. 2.

Witnesses

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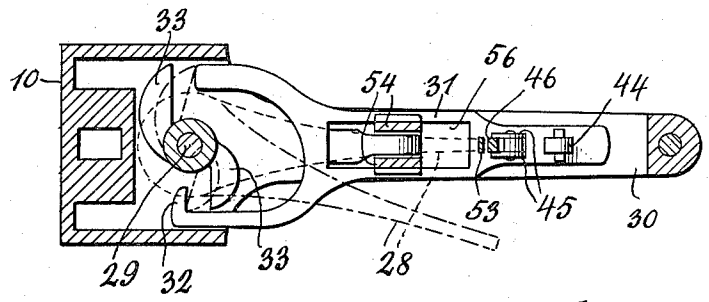

Fig. 3.

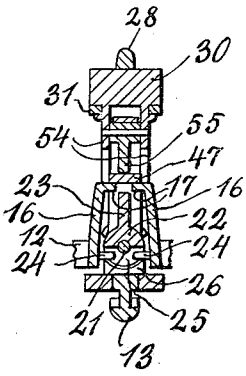

Fig. 4.

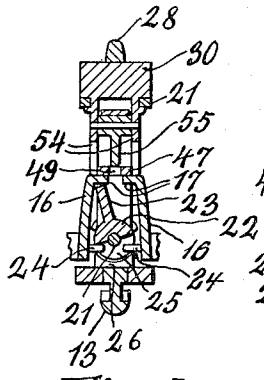

Fig. 5.

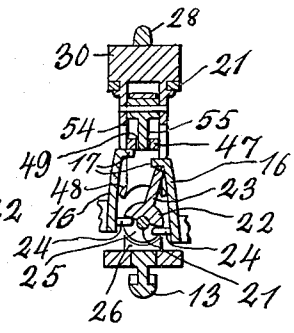

Fig. 6.

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UNITED STATES PATENT OFFICE.

CLARENCE B. TILDEN, OF MADISON, OHIO, ASSIGNOR OF ONE-THIRD TO WILLIS A. SUNDERLAND, OF MADISON, OHIO.

SINGLE-TRIGGER MECHANISM FOR DOUBLE-BARRELED GUNS.

1,051,032. Specification of Letters Patent. Patented Jan. 21, 1913.

Application filed May 31, 1912. Serial No. 700,738.

To all whom it may concern:

Be it known that I, CLARENCE B. TILDEN, a citizen of the United States, residing at Madison, in the county of Lake and State of Ohio, have invented certain new and useful Improvements in Single-Trigger Mechanism for Double-Barreled Guns, of which the following is a specification.

This invention relates to double-barreled shot-guns having a single trigger by means of which either hammer can be released at the option of the operator.

It is the object of the invention to provide a novel and improved single-trigger mechanism which can be readily set to discharge first the right and then the left barrel of the gun, or vice versa.

The invention also has for its object to provide a mechanism of the kind stated in which the change from one sear to the other is absolutely positive and automatic.

A further object of the invention is to provide a novel and improved safety-latch.

Another object of the invention is to provide a mechanism of the kind stated which is devoid of complicated parts to get out of order, and which is therefore reliable in operation.

With these objects in view, the invention consists in a novel combination and arrangement of parts to be hereinafter described and claimed.

In order that the invention may be better understood, reference is had to the accompanying drawings, in which—

Figure 1 is an elevation of the frame of a gun, partly in section, illustrating the mechanism which is the subject of the present invention. Fig. 2 is a longitudinal section of the frame. Fig. 3 is a horizontal section on the line 3—3 of Fig. 2. Fig. 4 is a cross-section on the line 4—4 of Fig. 2, showing the sear actuating mechanism in neutral position, and the safety latch set to block the sears. Fig. 5 is a view similar to the preceding, showing the sear actuating mechanism set to actuate the left sear. Fig. 6 is a similar view showing the left sear actuated and the actuating mechanism in position to actuate the right sear.

Referring specifically to the drawings, 10 denotes the frame of a double-barreled shot-gun, said frame carrying the hammers 11, and the sears 12 engageable with the latter in the ordinary manner. A single trigger 13 is provided, having a trigger guard 14.

The sears 12 are pivoted on a transverse pin 15 carried by the frame 10 and have at their rear ends upstanding portions 16 the tops of which are inturned as indicated at 17 to form abutments which are engageable by the trigger-mechanism to be presently described. These abutments are opposite one another and the parts 16 are spaced apart sufficiently to allow the sear-actuating device to work therebetween.

The forward portion of the trigger is pivoted at 18 in the slot of a lug 19 rising from the bottom portion of the frame 10. The top of the trigger has a recess in which is mounted a pin 21 extending longitudinally of the frame. On this pin is loosely mounted the hub portion 22 of a finger 23 which is located between the parts 16 and is adapted to be swung over toward one or the other of said parts so as to alternately engage the abutments 17. From the inner faces of the parts 16 project pins 24 which are adapted to extend into a transverse recess 25 in the bottom of the hub 22. The floor of the top recess of the trigger also has a recess 26 coinciding with the recess 25, so that the pins 24 may not interfere with the movement of the trigger.

The gun is also provided with a bolt 27 for locking the barrels, said bolt being actuated by the usual top-lever 28 which is connected to a post 29 operatively connected to the bolt in the ordinary manner.

The barrel locking mechanism is connected to a safety-device comprising the following parts: On the under side of the tang 30 of the frame 10 is mounted a slide 31 having its forward end forked so as to straddle the post 29. One of the branches of the fork terminates in an inwardly directed hook 32 which is in the path of one of a pair of diametrically opposite lugs 33 on the post 29, the end of the other fork branch being in the path of the other lug, whereby the slide is operated when the post is rotated by means of the top lever 28. To the rear end of the slide is fastened a thumb-piece 44 which works in a slot in the tang 30. This end of the slide also has ears 45 to which is pivoted a slide-plate 46 having stepped portions 47 and 48. The stepped portion 47 has two apertures 49, and the

stepped portion 48 has a recess 50 the end walls 51 of which latter extend obliquely. The portion 47 is located directly above the top of the parts 16, and the portion 48 lies above a forward extension of the hub 22, the latter carrying a projecting pin 52 which extends into the recess 50. The oblique walls 51 of the recess, upon engaging the pin 52 rock the hub to the right or left, according to which one of the end walls engages the pin, and thereby impart a corresponding swing to the finger 23. A flat spring 53 engageable with the slide-plate 46 tends to press the same downward. On the under side of the tang 30 are lugs 54 between which is pivoted a depending finger 55 which is located above the part 47 of the slide-plate 46, and is adapted to enter one or the other of the apertures 49. The slide 31 is slotted at 56 to accommodate the lugs 54 and finger 55.

The operation of the mechanism herein described may be summarized as follows: When the trigger 13 is pulled to discharge the gun the finger 23 is pushed upward against the abutment 17 of one of the sears 12, and when the trigger is again pulled, the finger engages the abutment of the other sear, so that first one sear and then the other is actuated to release the hammers consecutively. The finger 23 is swung over from one side to the other by the engagement of the pins 24 with the shoulders formed on the hub 22 by the recess 25. Assuming the right sear is first actuated, then, when the trigger is released and allowed to drop down, the pin 24 of said sear engages the shoulder on the right side of the hub 22 and swings the finger 23 over to the left sear, so that when the trigger is now again pulled the left sear is actuated. If the left sear is first actuated, the pin of said sear swings the finger over to the right sear. The finger can be set to actuate either one of the sears first by operating the slide 31 by means of the thumb-piece 44. Upon pushing the slide forward, the slide-plate 46 is also carried forward and when the rear oblique wall 51 of the recess 50 strikes the pin 52, the hub 22 is rocked to bring the finger 23 over to the right sear. When the slide-plate 46 is carried rearward until the forward oblique wall 51 strikes the pin 52, the finger 23 is swung toward the left sear. It will therefore be seen that either barrel of the gun may be discharged first at the will and option of the operator. Before the gun can be fired, the slide-plate 46 must be so positioned that the finger 55 is in line with one or the other of the apertures 49. The part 47 of the slide-plate 46 is held down on top of the parts 16 of the sears by the spring 53 when the gun is cocked, whereby the sears are locked until one or the other of the apertures 49 is brought in line with the finger 55, whereupon the slide-plate 46 is freed and the sears may be released. To lock the sears when the gun is cocked, the slide-plate 46 is positioned so that the apertures 49 are not in line with the finger 55, whereby the latter locks the slide-plate and prevents its upward swing. Inasmuch as there are two apertures 49, the sears can be locked from the forward as well as the rearward position of the slide-plate 46, after the same has been actuated to set the finger 23. Upon swinging the top-lever 28 to open the gun, the slide 31, through the lugs 33 is actuated to place the slide-plate 46 in locking position. The finger 55 remains in one of the apertures 49 after the last barrel has been fired, but as it is pivoted, the slide-plate is free to move to safety position, and when the gun is again cocked and the sears drop down, the slide-plate follows the latter and the finger rides out of the aperture and comes into locking position. This action takes place irrespective of the direction in which the slide-plate 46 is carried by the slide 41. When the slide is in its forward position, the left lug 33 engages the left fork branch and pushes the slide rearward when the top-lever 28 is swung, and when the slide is in its rearward position, the hook 32 of the right fork branch is engaged by the right lug 33, and the slide is pulled forward. It will therefore be seen that the top-lever actuates the safety device irrespective of the position in which the finger 55 has been set by the slide. The finger 55 is engaged by the free end of a flat spring 57 which tends to normally hold said finger in perpendicular position, and to restore the same to this position when the finger rides out of the aperture as hereinbefore described.

I claim:

1. In a double barreled gun, a pair of sears, a single trigger, a pivot pin carried by the trigger, a finger having a hub portion mounted for rocking movement on the pivot pin and adapted to alternately engage the sears when the trigger is actuated, and means for rocking said hub portion of the finger to determine the initial position thereof, said means comprising a slidable member having a slot provided with opposite oblique walls, and a pin carried by the aforesaid hub and extending into the slot.

2. In a double barreled gun, a pair of sears, a single trigger, a rockable finger carried by the trigger between the sears and adapted to actuate the same, said finger having shoulders on opposite sides, and pins on the sears engageable with the respective shoulders to swing the finger between the sears.

3. In a double barreled gun, a pair of sears, a single trigger, a rockable finger carried by the trigger between the sears and adapted to actuate the same, said finger having shoulders on opposite sides, pins on the

sears engageable with the respective shoulders to swing the finger between the sears, and means for determining the initial position of the finger.

4. In a double barreled gun, a pair of sears having abutments, a single trigger, a pivot pin carried by the trigger, a finger having a hub portion mounted for rocking movement on the pivot pin, said finger being adapted to alternately engage the aforesaid abutments when the trigger is actuated, a slidable member having a slot provided with opposite oblique walls, and a pin carried by the aforesaid hub and extending into the slot.

5. In a double barreled gun, a pair of sears having abutments, a single trigger, a rockable finger carried by the trigger between the sears and adapted to engage the abutments thereof, said finger having shoulders on opposite sides, and pins on the sears engageable with the respective shoulders to swing the finger between the sears.

6. In a double barreled gun, a pair of sears having opposite abutments, a single trigger, a rockable finger carried by the trigger between the sears, and adapted to engage the abutments thereof, said finger having shoulders on opposite sides, pins on the sears engageable with the respective shoulders to swing the finger between the sears, and means for determining the initial position of the finger.

7. In a double barreled gun, a pair of sears, a single trigger, means carried by the trigger for alternately actuating the sears, means for determining the initial position of the actuating means, a safety-device for blocking the sears, and means carried by the safety-device for actuating the second-mentioned means.

8. In a double barreled gun, a pair of sears, a single trigger, means carried by the trigger for alternately actuating the sears, means for determining the initial position of the actuating means, a safety-device for blocking the sears, means carried by the safety-device for actuating the second-mentioned means, a barrel-lock, a top lever for operating said lock, and an operative connection between the top lever and the safety-device.

9. In a double barrel gun, a pair of sears, a single trigger, means carried by the trigger for alternately actuating the sears, means for determining the initial position of the actuating means, a safety-device for blocking the sears at either initial position of the actuating means, means carried by the safety-device for actuating the second-mentioned means, a barrel-lock, a top lever for operating said lock, and an operative connection between the top lever and the safety-device for restoring the latter to blocking position from either position of the actuating means of the second-mentioned means.

10. In a double barreled gun, a pair of sears, a single trigger, means carried by the trigger for alternately actuating the sears, means for determining the initial position of the actuating means, and a safety-device comprising a slide, a slide-plate carried by the slide and having a portion extending across the sears, said portion having apertures, and said slide-plate also having means for actuating the second-mentioned means, a pivoted finger above the apertured portion of the slide-plate, a barrel-lock, a top-lever for operating said lock, and means carried by the top-lever for actuating the slide.

11. In a double barreled gun, a pair of sears, a single trigger, means carried by the trigger for alternately actuating the sears, means for determining the initial position of the actuating means, and a safety-device comprising a slide, a slide-plate carried by the slide and having a portion extending across the sears, said portion having apertures, and said slide-plate also having means for actuating the second-mentioned means, a pivoted finger above the apertured portion of the slide-plate, and means for operating the slide.

12. In a double barreled gun, a pair of sears, a single trigger, a rockable finger carried by the trigger and located between the sears to actuate the same, a pin carried by the finger, and a safety-device comprising a slide, a slide-plate carried by the slide and having an apertured portion extending across the sears, and said slide-plate also having a slot the opposite walls of which are oblique, into which slot the aforesaid pin extends, a pivoted finger above the apertured portion of the slide-plate, and means for operating the slide.

13. In a double barreled gun, a pair of sears, a single trigger, a rockable finger carried by the trigger and located between the sears to actuate the same, a pin carried by the finger, and a safety-device comprising a slide, a slide-plate carried by the slide and having an apertured portion extending across the sears, and said slide-plate also having a slot the opposite walls of which are oblique, into which slot the aforesaid pin extends, a pivoted finger above the apertured portion of the slide-plate, a barrel lock, a top lever for operating said lock, and means carried by the top-lever for actuating the slide.

14. In a double barreled gun, a pair of sears, a single trigger, means carried by the trigger for alternately actuating the sears, means for determining the initial position of the actuating means, and a safety-device comprising a slide, having a fork at one end, one of the branches of said fork having a

hook, a slide-plate carried by the slide and having a portion extending across the sears, said portion having apertures, and said slide-plate also having means for actuating the second-mentioned means, a pivoted finger above the apertured portion of the slide-plate, a barrel lock, a post operatively connected to the lock, and a top-lever connected to the post for actuating the same, diametrically opposite lugs on the post one of said lugs being in the path of one of the aforesaid fork branches of the slide and the other lug in the path of the hook of the other fork branch.

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

CLARENCE B. TILDEN.

Witnesses:

W. A. CORLETT,

C. O. WARREN.