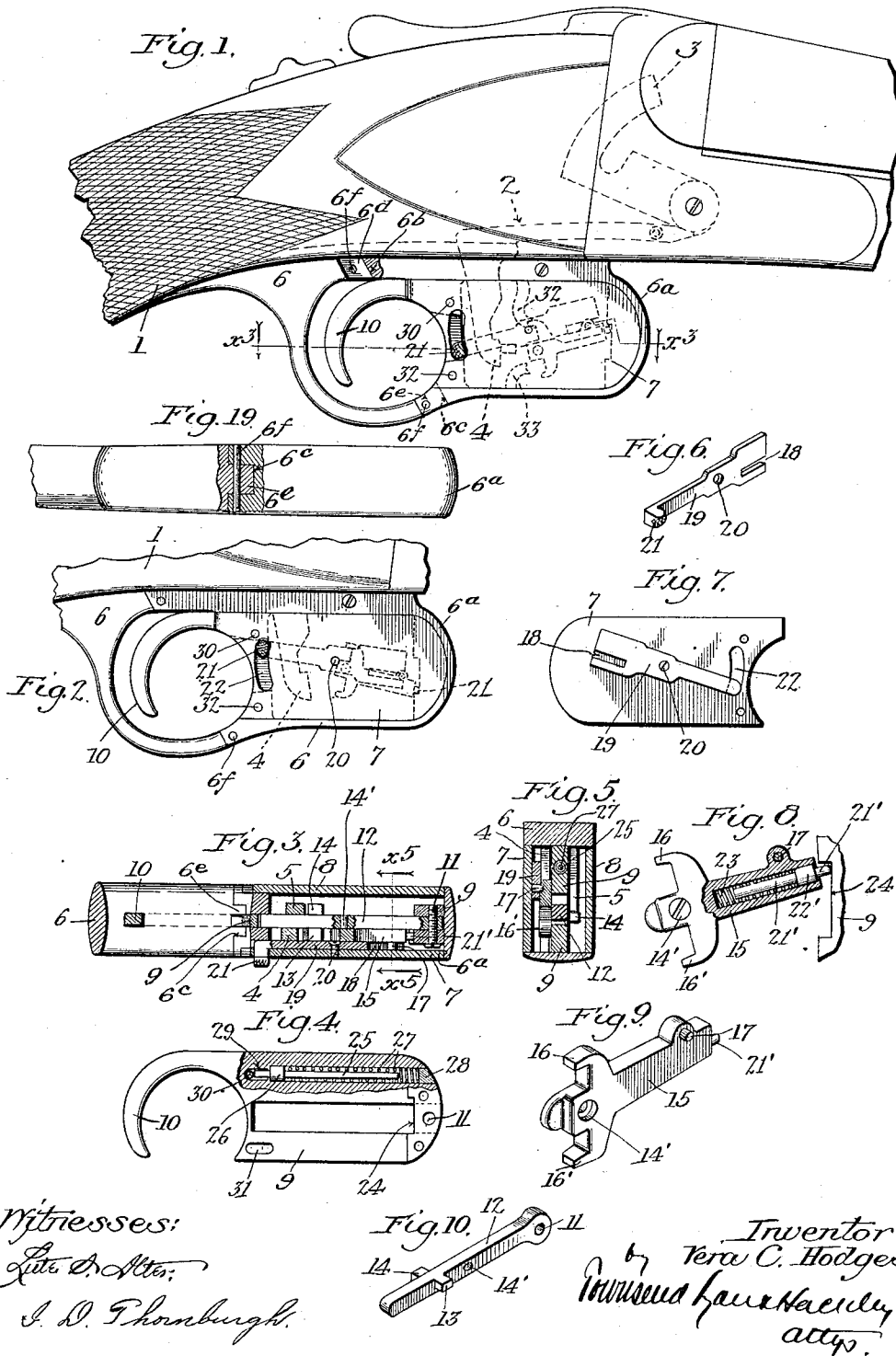


V. C. HODGES.
SINGLE TRIGGER MECHANISM.
APPLICATION FILED APR. 19, 1911.

1,011,432.

Patented Dec. 12, 1911

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 11.

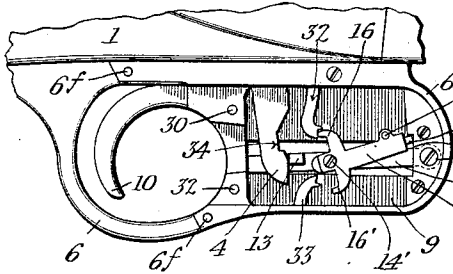


Fig. 12.

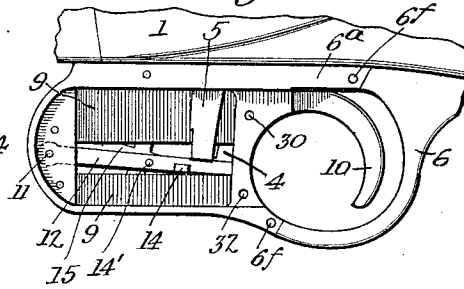


Fig. 13.

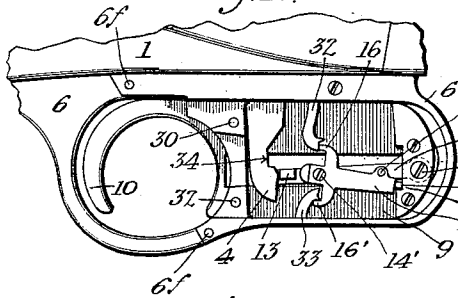


Fig. 14.

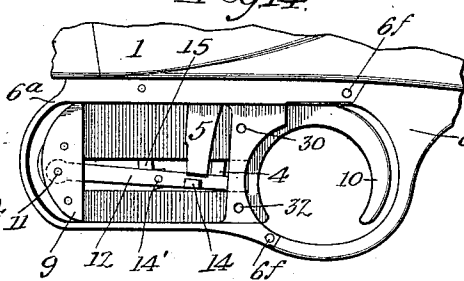


Fig. 15.

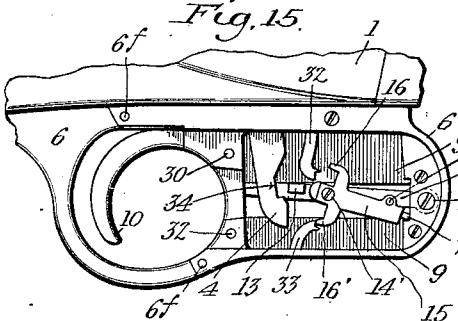


Fig. 16.

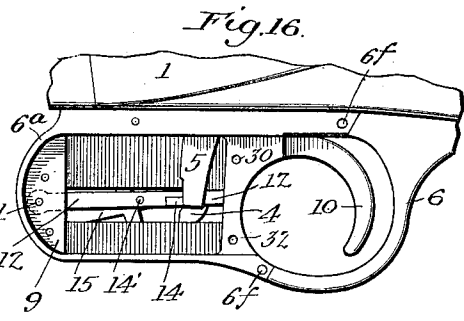


Fig. 17.

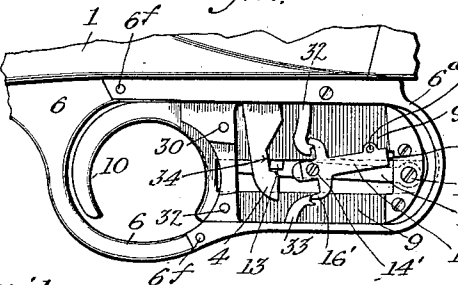
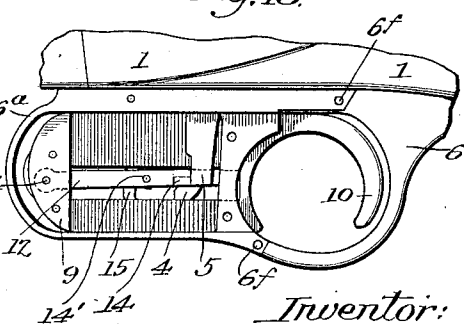


Fig. 18.



Witnesses:

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Inventor:
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UNITED STATES PATENT OFFICE.

VERA C. HODGES, OF LOS ANGELES, CALIFORNIA.

SINGLE-TRIGGER MECHANISM.

1,011,432.

Specification of Letters Patent.

Patented Dec. 12, 1911.

Application filed April 19, 1911. Serial No. 622,123.

To all whom it may concern.

Be it known that I, VERA C. HODGES, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Single-Trigger Mechanism, of which the following is a specification.

In a former patent of mine No. 945,459, January 4th, 1910, I show a single trigger mechanism which may be applied to an ordinary double barrel gun, and the object of the present invention is to provide an improved and simplified construction.

Referring to the drawings:—Figure 1 is a side elevation of a portion of the gun equipped with the invention. Fig. 2 is a side elevation of the device showing the mechanism in position for shooting the left barrel upon pulling the trigger. Fig. 3 is a section on line x^3-x^3 Fig. 1. Fig. 4 is a side elevation of the slide partly in section. Fig. 5 is a section on line x^5-x^5 Fig. 3. Fig. 6 is a perspective of the manual shifter. Fig. 7 is a side elevation of the reverse side of the cover plate. Fig. 8 is a side elevation, partly in section, of the automatic shifter. Fig. 9 is a perspective view of the automatic shifter. Fig. 10 is a perspective of the trigger bar. Fig. 11 is a side elevation of the mechanism with the cover plate removed, showing the parts in position for firing the right barrel, the gun having been cocked. Fig. 12 is a view similar to Fig. 11, showing the reverse side of the mechanism. Fig. 13 is a view similar to Fig. 11, showing the position of the parts after the single trigger has been pulled back and the right barrel fired. Fig. 14 is a view similar to Fig. 13 of the reverse side of the mechanism. Fig. 15 is a view similar to Fig. 13, showing the position of the parts after the single trigger has moved forward after firing the right barrel. Fig. 16 is a view similar to Fig. 15, showing the reverse side of the mechanism. Fig. 17 is a view similar to Fig. 15, showing the position of the parts after pulling back the trigger to fire the left barrel. Fig. 18 is a view similar to Fig. 17, showing the reverse side of the mechanism.

1 designates the stock of the gun having any desired form of breech mechanism 2, with hammers 3, right trigger 4 and left trigger 5. That portion of the triggers 4 and 5 which projects below the stock of the gun is modified from the regular form, but above this point, or that portion of the trig-

gers which lies within the breech mechanism, is unchanged from the ordinary construction and form. Secured to the under side of the breech mechanism is a frame 6 with a right cover 7 and a left cover 8, as shown in Fig. 3. Arranged within the frame 6 and slidable therein is a slide 9, shown in detail in Fig. 4, and formed with a single trigger 10 at its rear end. Pivoted at 11 to the slide 9 is a trigger bar 12, and having a right trigger lug 13 and a left trigger lug 14, which lugs are adapted to be moved against the respective right and left triggers 4 and 5 of the gun and operate the same in a manner to be described. Pivoted at 14' to the trigger bar 12 is an automatic shifter 15 having an upper arm 16 and a lower arm 16' and having a lateral pin 17 which engages in a slot 18 in a manual shifter 19 which is pivoted at 20 to the right cover plate 7 and which has a finger knob 21 projecting through a slot 22 in the plate 7 by means of which the manual shifter 19 may be shifted as desired. Slidable within the automatic shifter 15 is a pin 21' having a circumferential shoulder 22' with a compression spring 23 within the automatic shifter 15 and serving to press the pin 21' outwardly so that its end bears against the bearing face 24 of the slide 9. Within the slide 9 is a pin 25 with a circumferential shoulder 26 bearing against a compression spring 27, the spring 27 being confined in the slide 9 by a plug 28. The end of the pin 25 projects into a slot 29 through which a screw or pin 30 passes, the latter preventing rearward movement of the pin 25 so that a rearward movement of slide 9 will compress spring 27, and so that when the single trigger 10 is released the spring 27 will move the slide 9 forward. The slide 9 is also formed with a slot 31 through which extends a screw or pin 32.

Projecting down from the upper side of the frame 6 is an upper post 32, and projecting up from the lower side of the frame 6 is a lower post 33. The right trigger 4 has a notch 34 so that when the trigger bar is in raised position, and is moved rearwardly, its trigger lug 13 will move back into the notch 34 without operating the right trigger 4.

In operation, when the parts stand in the position shown in Fig. 11, the arm 16 of the automatic shifter is in engagement with the

upper post 32 and the trigger lug 13 lies below the notch 34 and bears directly against the right trigger 4. Upon pulling back the single trigger 10, the automatic shifter 15 is retracted by means of the pin 14', and as the upper arm 16 is resisted by the post 32 the latter acts as a fulcrum during the rearward motion of the slide and automatic shifter, so that as the trigger bar 12 is moved back its trigger lug 13 presses back the trigger 4 and fires the right barrel, and at the same time the automatic shifter is caused to rock upon its pivot 14' so that the pin 21' moves to the lower part of the bearing face 24 which brings the arm 16' under the end of the lower post 33, as shown in Fig. 13, at the conclusion of the rearward stroke of the slide. During this rocking motion of the automatic shifter the pin 21' in pressing down on the bearing face 24 compresses the spring 23 which permits the pin 21' to retract sufficiently to permit of this movement. During this movement the left trigger lug 14 in passing rearwardly moves under the lower end of the left trigger 5 and consequently does not operate the trigger 5. This is clearly shown in Fig. 12 wherein the trigger lug 14 is shown at a point below the left trigger 5. After the right barrel has thus been fired, upon releasing the single trigger 10 the spring 27 expands and moves the slide forward, and as the slide moves forward it carries the automatic shifter with it and the lower arm 16' thereof moves into engagement with the end of the lower post 33, the parts assuming the position shown in Figs. 15 and 16, and the left trigger lug 14 stands in front of the left trigger 5 by reason of the upward tilting of the trigger bar 12 which occurs during the forward motion of the slide as the parts are moving from the position shown in Fig. 13 to that shown in Fig. 15. With the parts standing as shown in Fig. 15, upon pulling the single trigger 10 back, the left trigger lug 14 acts against the left trigger 5 and operates that trigger, thus firing the left barrel, and at the same time as the lower arm 16' is resisted by the lower post 33 the automatic shifter is caused to be tilted from the position shown in Fig. 15 to that shown in Fig. 17, and upon the release of the single trigger 10 the slide is again moved forward whereupon the upper arm 16 moves into engagement with the upper post 32. It should be understood that with the parts in the position shown in Fig. 13 during the forward motion of the slide the lower arm 16' of the automatic shifter is caused to move into engagement with the end of the post 33 by a slight upward movement of the trigger bar, and this movement is produced by the reaction of spring 23 within the automatic shifter in which the end of the pin 21' where it bears against the face 24, acts as a

fulcrum, and as the pivotal point 14' is above the point of contact of the pin 21' the trigger bar and shifter are moved slightly upward the necessary distance to bring the lower arm 16' into engagement with the post 33. In like manner the upper arm 16 is moved into engagement with the upper post 32 as the slide is moved forward from the position shown in Fig. 17 to that shown in Fig. 11, the slight downward movement of the trigger bar and automatic shifter being accomplished by the reaction of the spring 23, the pin 21' at this time lying at the top portion of the bearing face 24. As the trigger bar is thus automatically shifted by the automatic shifter to cause the trigger bar to be alternately moved into cooperative engagement with the right trigger and left trigger, the manual shifter 19 is also moved by reason of the engagement of the pin 17 in the slot 18. One advantage of this is that the position of the parts can be ascertained by a glance at the knob 21 which indicates if it is in the lower part of the slot 22 that the right trigger 4 will be fired upon pulling the single trigger 10, while if the knob is in the upper part of slot 22 the left trigger 5 will be operated upon pulling the single trigger 10. The knob 21 may be manually operated to move the manual shifter 19 into either of its two positions and to thereby change the position of the automatic shifter and trigger bar; thus if the parts should stand in the position shown in Fig. 11, and it should be desired to fire the left barrel first, the knob 21 would first be pushed into the upper part of the slot 22, whereupon by pulling the single trigger 10 the left barrel will be fired, and vice versa.

The frame 6 is made in two parts, the part 6^a being notched at 6^b and 6^c to receive tongues 6^d and 6^e, and pins 6^f unite the parts enabling them to be separated to permit the insertion or removal of the single trigger mechanism.

What I claim is:—

1. In a single trigger mechanism, in combination with two regular triggers, a single trigger, a trigger bar operated by the single trigger for directly engaging one or the other of the regular triggers, and means for alternately engaging said trigger bar directly with the regular triggers in successive strokes of the single trigger.

2. In combination with the regular triggers, a single trigger, a trigger bar operated by the single trigger and movable into cooperative relation with either of the regular triggers, and means for alternately tilting said trigger bar to place it in alternate cooperative relation with the respective regular triggers in successive operations of the single trigger.

3. In combination with the regular triggers, a single trigger, a trigger bar pivot-

ally mounted in relation thereto and movable bodily therewith, and means for automatically placing the trigger bar in direct engagement alternately with the regular triggers in successive operations of the single trigger.

4. In combination with the regular triggers, a single trigger, a trigger bar pivotally mounted with relation thereto and movable bodily therewith, an automatic shifter pivotally mounted on the trigger bar, and two stationary abutments engaged alternately by the automatic shifter in successive operations of the single trigger for tilting the trigger bar and placing it in coöperative relation alternately with the regular triggers.

5. In combination with the regular triggers, a single trigger, a trigger bar pivotally mounted with relation thereto and movable bodily therewith, an automatic shifter pivoted on the trigger bar and having an upper arm and a lower arm and an upper stationary post and a lower stationary post, the lower of said arms being resisted by the lower post in alternate operations of the single trigger and the upper arm being resisted by the upper post in intervening operations of the single trigger, whereby the trigger bar is tilted in one direction or the other by the alternate engagement of said arms with said posts to cause the trigger bar to be placed alternately in coöperative relation with the regular triggers.

6. In combination with the regular triggers, a single trigger, a trigger bar pivotally mounted in relation thereto and movable bodily therewith and having a trigger lug on each side thereof, the respective trigger lugs being movable into coöperative relation with the respective regular triggers by tilting the trigger bar, and means for tilting the trigger bar in alternate directions in successive operations of the single trigger.

7. In combination with the regular triggers, a single trigger, a trigger bar pivotally mounted with relation thereto and movable bodily therewith and having two trigger lugs, one of said regular triggers having a notch to receive one of the trigger lugs without causing said regular trigger to be operated, the other regular trigger being shorter, and means operating in successive strokes of the single trigger for alternately tilting the trigger bar to lift one of the trigger lugs into engagement with the shorter regular trigger and at intervening operations to tilt the trigger bar and move the other trigger lug into coöperative relation with the longer regular trigger.

8. In combination with the regular triggers, a single trigger, a trigger bar pivotally mounted with relation thereto and movable bodily therewith, an automatic shifter piv-

oted to the trigger bar and having two arms, two abutments for alternately engaging the respective arms, a spring pressed pin in the automatic shifter, and means having a bearing surface for receiving the thrust from said pin.

9. In combination with the regular triggers, a slide, a single trigger for operating the slide, a trigger bar pivoted directly to the slide, an automatic shifter pivoted to the trigger bar, the trigger bar having lugs on opposite sides adapted to engage alternately with the regular triggers, the automatic shifter having an upper arm and a lower arm, upper and lower posts adapted to engage alternately with the respective arms of the automatic shifter, a pin slidable in the automatic shifter, a spring forcing the pin outwardly, and means having a bearing surface against which said pin presses.

10. In combination with the regular triggers, a slide, a single trigger for operating the slide, a trigger bar pivoted directly to the slide, an automatic shifter pivoted to the trigger bar, the trigger bar having lugs on opposite sides adapted to engage alternately with the regular triggers, the automatic shifter having an upper arm and a lower arm, upper and lower posts adapted to engage alternately with the respective arms of the automatic shifter, a pin slidable in the automatic shifter, a spring forcing the pin outwardly, means having a bearing face against which said pin presses, and a pivoted manual shifter engaging the automatic shifter.

11. In combination with the regular triggers, a slide, a single trigger for operating the slide, a trigger bar pivoted directly to the slide, an automatic shifter pivoted to the trigger bar, the trigger bar having lugs on opposite sides adapted to engage alternately with the regular triggers, the automatic shifter having an upper arm and a lower arm, upper and lower posts adapted to engage alternately with the respective arms of the automatic shifter, a pin slidable in the automatic shifter, a spring forcing the pin outwardly, means having a bearing face against which said pin presses, a pivoted manual shifter having a slot, and a pin on the automatic shifter projecting into said slot.

12. In combination with the regular triggers, a slide, a single trigger for operating the slide, a trigger bar pivoted directly to the slide, an automatic shifter pivoted to the trigger bar, the trigger bar having lugs on opposite sides adapted to engage alternately with the regular triggers, the automatic shifter having an upper arm and a lower arm, upper and lower posts adapted to engage alternately with the respective arms of the automatic shifter, a pin slidable in the automatic shifter, a spring forcing the

pin outwardly, means having a bearing face against which said pin presses, a pin slidable in said slide, a spring forcing said latter pin in one direction, the slide having a slot, and
5 a cross pin for resisting rearward movement of the said latter pin.

13. In combination with the regular triggers, a frame formed of two parts detachably secured together, a single trigger inclosed by said frame, and means operated by
10 the single trigger for operating the regular triggers in succession.

14. In combination with the regular triggers, a frame in two parts, one part having

notches, the other part having tongues which
15 fit the notches, pins through the tongues and notches detachably securing the parts together, a single trigger inclosed by said frame, and means operated by the single trigger for successively operating the regu-
20 lar triggers.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 12 day of April, 1911.

VERA C. HODGES.

In presence of—

G. T. HACKLEY,
P. H. SHELTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."