

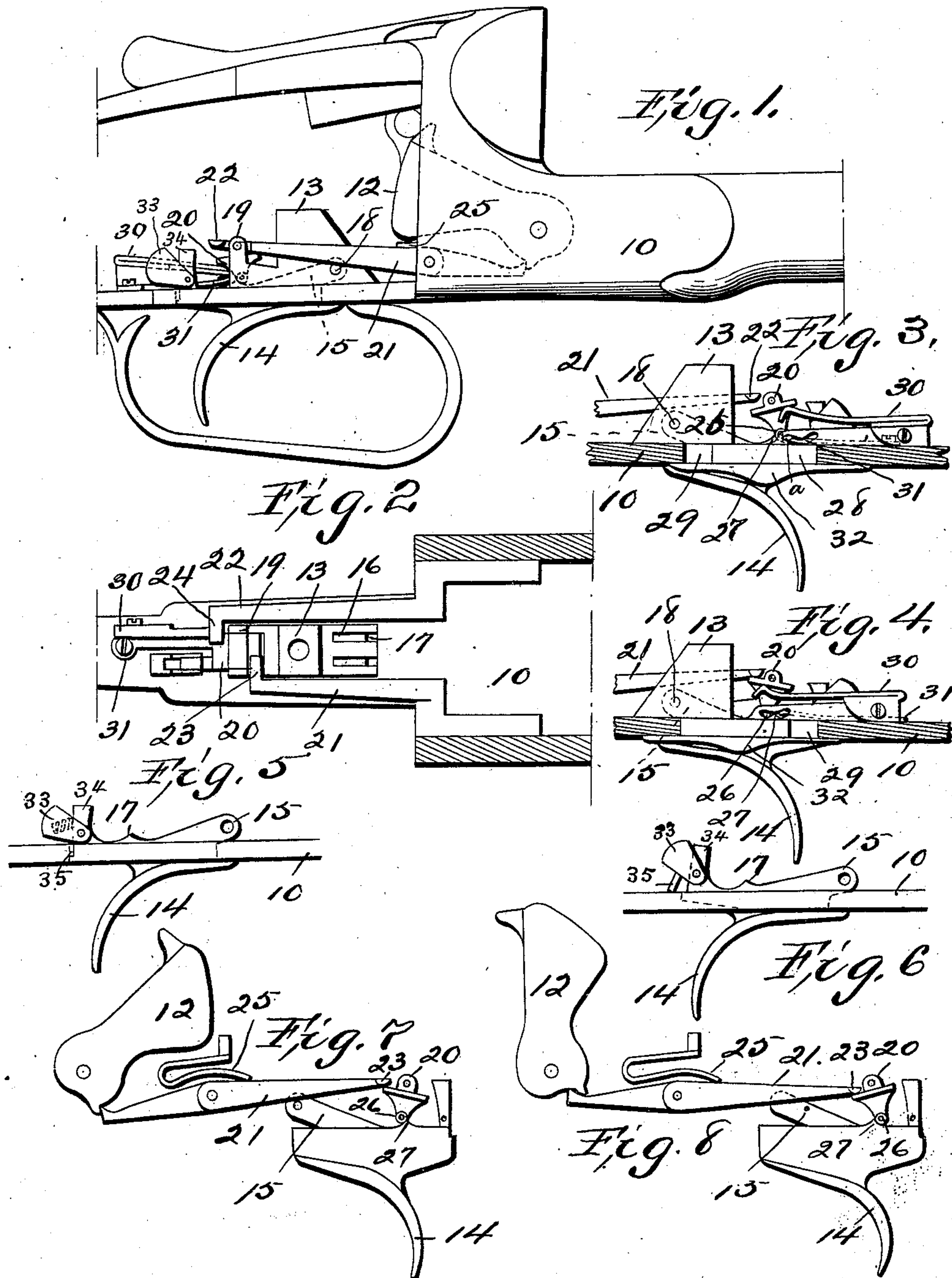
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J. KAUTZKY.

AUTOMATIC SINGLE TRIGGER MECHANISM FOR DOUBLE BARREL GUNS.

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UNITED STATES PATENT OFFICE.

JOSEPH KAUTZKY, OF FORT DODGE, IOWA.

AUTOMATIC SINGLE-TRIGGER MECHANISM FOR DOUBLE-BARREL GUNS.

No. 827,242.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH KAUTZKY, a citizen of the United States, residing at Fort Dodge, in the county of Webster and State of Iowa, have invented a new and useful Automatic Single-Trigger Mechanism for Double-Barrel Guns, of which the following is a specification.

My object is to provide automatic mechanism for operating the single trigger of a double-barrel gun in such a manner that when the trigger is pulled to discharge either one of the barrels the automatic action of the mechanism when one barrel is discharged will operate a tumbler for connecting the trigger therewith as required for discharging the gun a second time.

My invention consists in the construction, arrangement, and combination of elements and subcombination, as hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the frame of a breech-loading double-barrel gun lock and shows the positions of the hammer, two sears, a tumbler, and a trigger relative to each other and the frame. Fig. 2 is a longitudinal horizontal sectional view and shows the positions of the two sears relative to the tumbler and an auxiliary stop device pivotally connected with the trigger to automatically prevent the discharge of the second barrel immediately after the first discharge. Fig. 3 is a sectional detail view that shows the slide pulled back as required to bring the tumbler into position for discharging the left barrel. Fig. 4 is a sectional detail view that shows the position of the tumbler relative to the right-hand sear, the spring, and the slidable device for determining which barrel shall be first discharged. Fig. 5 is a detail view that shows the normal position of the auxiliary stop device relative to the trigger for preventing an immediate discharge of the second barrel after the first barrel has been discharged; and Fig. 6 is a corresponding view that shows its position caused by the recoil after the first barrel has been discharged. Fig. 7 is a detail view that shows the position of the hammer when cocked and the relative positions of the two sears, the tumbler, and the trigger when the right-hand barrel is to be discharged; and Fig. 8 is a corresponding view that shows the relative positions assumed by the different parts after the barrel is discharged.

The numeral 10 designates the frame, adapted for hanging two barrels to its front end, in which the hammers 12 are pivotally mounted, as indicated by dotted lines in Fig. 1.

The standard 13, to which the trigger 14 is pivoted, is integral with the lower rear extension of the frame 10. The trigger has a forward and upwardly inclined projection 15, that extends into corresponding slots 16 in the bearer 13, in which the branches 17 of the projection 15 are pivoted by a pin 18, as shown in Fig. 1.

Auxiliary standards 19 are integral with the rear end of the standard 13, to which the tumbler 20 is pivoted in a pendent position as required to allow it to be vibrated alternately in opposite directions by the contact of the ends of two spring-actuated sears 21 and 22, pivoted in the recesses in the frame under the hammers 12. The front ends of the sears terminate in upward projections adapted to engage notches in the hammers 12, as indicated by dotted lines in Fig. 1 and as shown in Fig. 7 and as required to retain the hammers in a cocked position until released by pulling the trigger 14. The rear ends of the sears have right-angled inward extensions 23 and 24, as shown in Fig. 2, that alternately engage the top of the tumbler 20 as required to be actuated by pulling the trigger for successively discharging the two barrels. Springs 25, fixed in recesses in the frame 10, (indicated by dotted lines in Fig. 1,) project rearward over the sears 21 and 22 and normally retain them depressed, as shown in Fig. 6.

To the free end of the tumbler 20 is journaled a roller 26, that engages a cam 27 on top of the trigger in such a manner that the tumbler will be vibrated when the hammers are cocked and the trigger is pulled to actuate the sears 21 and 22 as required for releasing the hammers 12 and discharging the two barrels at different times.

To decide which barrel (the right or the left) shall be discharged first, a selector attachment consisting of a slide 28, mounted in a slot 29 in the frame and extended rearward, and a spring 30, fixed to its rear end to engage the tumbler 20 as shown in Fig. 3 when the left-hand barrel is to be discharged and as shown in Fig. 4 when the right-hand barrel is to be discharged, and a spring 31, fixed to the trigger-plate at the side of the slide, as shown solid in Fig. 1 and

in dotted lines in Figs. 3 and 4. On the lower side of the slide 28 is an integral thumb-piece 32, adapted in shape to be engaged by a person's thumb as required for moving the slide backward and forward for the purpose of selecting the barrel to be discharged first. The front end of the spring 31 has an integral pin *a*, that projects laterally and enters a curved groove in the slide 28, as shown in Fig. 3, in such a manner that the spring 31 normally retains the slide stationary in either of its two positions. Holding the trigger and tumbler up with the sear that has just been operated prevents the tumbler from engaging the second sear and the rebound from the shoulder forcing the trigger against an operator's finger, causing the safety-block 33 to lose its hold on the trigger-plate, the spring inside of the block (indicated by dotted lines in Fig. 5) thereby throwing it into its normal position and allowing the trigger to move downward far enough for the tumbler to pass the cam and engage the second sear.

Figs. 5 and 6 show an auxiliary device of common form for preventing the discharge of the second barrel immediately after one of the barrels has been discharged. It consists of a spring-actuated block 33, that is bifurcated at its lower end to straddle the upward extension 34 at the rear end of the trigger 14 in such a manner that a projection 35 at the lower end of the block will engage the top of the lower part of the frame in which the trigger 14 moves up and down, as shown in Fig. 6, when the block is thrown into said position by the recoil occasioned in discharging one of the barrels.

In the practical operation of my invention the tumbler 20 is engaged by the ends of the sears at two different points by the inward extensions of the two sears 21 and 22, as shown in Fig. 2, in such a manner that pulling the trigger 14 vibrates the tumbler as required to alternately release the hammers 12 for discharging the barrels at different times. By moving the slide 28 backward or forward the tumbler 20 is vibrated as required to change its position relative to the sears 21 and 22 and for deciding which one of the two barrels is to be discharged first.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a gun-lock, a frame, a trigger-standard projecting upward from the lower part of the frame, two parallel slots in the under side of the standard and a trigger having an upward extension pivoted in said slots, auxiliary elbow-shaped standards at the rear end of the trigger-standard and a tumbler pivoted between the auxiliary standard and a cam on the trigger to engage the lower end of the tumbler to vibrate the suspended tumbler.

2. In a gun-lock, a frame, a trigger-standard projecting upward from the lower part of the frame, two parallel slots in the under

side of the standard and a trigger having an upward extension pivoted in said slots, auxiliary elbow-shaped standards at the rear end of the trigger-standard and a tumbler pivoted between the auxiliary standards, a cam on the trigger to engage the lower end of the tumbler to vibrate the suspended tumbler and a roller on the lower end of the tumbler.

3. In a gun-lock, a frame, a trigger-standard projecting upward from the lower part of the frame, two parallel slots in the under side of the standard and a trigger having an upward extension pivoted in said slots, auxiliary elbow-shaped standards at the rear end of the trigger-standard and a tumbler pivoted between the auxiliary standards, means to vibrate the suspended tumbler, a spring-actuated sear pivoted in the frame and provided with a right-angled extension at its free end to engage the front top portion of the tumbler and a second sear pivoted in the frame and provided with a right-angled extension at its free end to engage the rear top portion of the tumbler.

4. In a gun-lock, a frame, a trigger-standard projecting upward from the lower part of the frame, two parallel slots in the under side of the standard and a trigger having an upward extension pivoted in said slots, auxiliary elbow-shaped standards at the rear end of the trigger-standard, a tumbler pivoted between the auxiliary standards and means to vibrate the suspended tumbler, a spring-actuated sear pivoted in the frame and provided with a right-angled extension at its free end to engage the front top portion of the tumbler and a second sear pivoted in the frame and provided with a right-angled extension at its free end to engage the rear top portion of the tumbler, two hammers pivoted in the frame provided with cams at their under edges and front end portions and projections at the front ends of the sears adapted to engage the cams on the hammers to retain the hammers in cocked positions.

5. In a gun-lock, a frame, a trigger-standard projecting upward from the lower part of the frame, two parallel slots in the under side of the standard and a trigger having an upward extension pivoted in said slots, auxiliary elbow-shaped standards at the rear end of the trigger-standard and a tumbler pivoted between the auxiliary standards and means to vibrate the suspended tumbler, a spring-actuated sear pivoted in the frame and provided with a right-angled extension at its free end to engage the front top portion of the tumbler and a second sear pivoted in the frame and provided with a right-angled extension at its free end to engage the rear top portion of the tumbler, two hammers pivoted in the frame provided with cams at their under edges and front end portions and projections at the front ends of the sears adapted to engage the cams on the hammers

to retain the hammers in cocked positions and the lower edges of the hammers being shaped in such manner, that when the first hammer is discharged the front end of the sear is allowed to move upward into a deeper place on the hammer enabling the sear-spring to force the hind end of the sear downward thus actuating the tumbler to engage the opposite sear for the second shot.

6. In a gun-lock, a frame, a trigger-standard projecting upward from the lower part of the frame, two parallel slots in the under side of the standard and a trigger having an upward extension pivoted in said slots, auxiliary elbow-shaped standards at the rear end of the trigger-standard and a tumbler pivoted between the auxiliary standards, means to vibrate the suspended tumbler, a spring-actuated sear pivoted in the frame and provided with a right-angled extension at its free end to engage the front top portion of the tumbler and a second sear pivoted in the frame and provided with a right-angled extension at its free end to engage the rear top portion of the tumbler, two hammers pivoted in the frame provided with cams at their under edges and front end portions and projections at the front ends of the sears adapted to engage the cams on the hammers to retain the hammers in cocked positions and the lower edges of the hammers being shaped in such manner, that when the first hammer is discharged the front end of the sear is allowed to move upward into a deeper place on the hammer, enabling the sear-spring to force the hind end of the sear downward thus actuating the tumbler to engage the opposite sear for the second shot, a slide fitted in a slot in the lower part of the frame and a spring fixed to the rear end of the slide to engage the under side of the top portion of the pivoted and suspended tumbler as required to select either barrel first.

7. In a gun-lock, a frame, a trigger-standard projecting upward from the lower part of the frame, a trigger pivoted to said standard, auxiliary elbow-shaped standards at the rear end of the trigger-standard and a tumbler pivoted between the auxiliary standards, a spring-actuated sear pivoted in the frame and provided with a right-angled extension at its free end to engage the front top portion of the tumbler and a second sear pivoted in the frame and provided with a right-angled extension at its free end to engage the rear top portion of the tumbler, two hammers pivoted in the frame and provided with cams at their under edges and front end portions and projections at the front ends of the sears adapted to engage the cams on the hammers to retain the hammers in cocked positions and the lower edges of the hammers being shaped in such manner that when the first hammer is discharged the front end of the sear is allowed to move upward into a

deeper place on the hammer, enabling the sear-spring to force the hind end of the sear downward thus actuating the tumbler to engage the opposite sear for the second shot, a slide fitted in a slot in the lower part of the frame and a spring fixed to the rear end of the slide to engage the under side of the top portion of the pivoted and suspended tumbler as required to select either barrel first and a spring fixed to the trigger-plate at the side of slide and provided with a pin at its front end extended into a curved slot in the slide to retain the slide stationary.

8. In a gun-lock, a frame, a trigger-standard projecting upward from the lower part of the frame, a trigger pivoted to said standard, auxiliary elbow-shaped standards at the rear end of the trigger-standard and a tumbler pivoted between the auxiliary standards, a spring-actuated sear pivoted in the frame and provided with a right-angled extension at its free end to engage the front top portion of the tumbler and a second sear pivoted in the frame and provided with a right-angled extension at its free end to engage the rear top portion of the tumbler, two hammers pivoted in the frame provided with cams at their under edges and front end portions and projections at the front ends of the sears adapted to engage the cams on the hammers to retain the hammers in cocked positions and the lower edges of the hammers being shaped in such manner that when the first hammer is discharged the front end of the sear is allowed to move upward into a deeper place on the hammer, enabling the sear-spring to force the hind end of the sear downward thus actuating the tumbler to engage the opposite sear for the second shot, a slide fitted in a slot in the lower part of the frame and a spring fixed to the trigger at the side of the slide to engage the under side of the top portion of the pivoted and suspended tumbler as required to select either barrel first, a spring fixed to the trigger-plate and provided with a pin at its front end extended into a curved slot in the slide to retain the slide stationary and means for moving the slide and spring backward and forward as required to therewith adjust the tumbler relative to the right-angled extensions at the free ends of the two sears and thereby select the barrel that is to be discharged first.

9. In a gun-lock, a frame, a trigger-standard projecting upward from the lower part of the frame, a trigger having an upward extension pivoted to said standard, auxiliary elbow-shaped standards at the rear end of the trigger-standard and a tumbler pivoted between the auxiliary standards, a spring-actuated sear pivoted in the frame and provided with a right-angled extension at its free end to engage the front top portion of the tumbler and a second sear pivoted in the frame and provided with a right-angled extension at

its free end to engage the rear top portion of the tumbler, two hammers pivoted in the frame provided with cams at their under edges and front end portions and projections
5 at the front ends of the sears adapted to engage the cams on the hammers to retain the hammers in cocked positions and the lower edges of the hammers being shaped in such manner, that when the first hammer is discharged the front end of the sear is allowed
10 to move upward into a deeper place on the hammer, enabling the sear-spring to force the hind end of the sear downward thus actuating the tumbler to engage the opposite sear
15 for the second shot, a slide fitted in a slot in the lower part of the frame and a spring fixed to the rear end of the slide to engage the under side of the top portion of the pivoted and suspended tumbler as required to select
20 either barrel first and a spring fixed to the

trigger-plate at the side of the slide and provided with a pin at its front end extended into a curved slot in the slide to retain the slide stationary and means for moving the slide and spring backward and forward as required to therewith adjust the tumbler relative to the right-angled extensions at the free ends of the two sears to thereby select the barrel that is to be discharged first and a bifurcated block pivoted to the trigger and
30 provided with an extension at its lower end to engage the frame and to serve as an auxiliary device to prevent the discharge of two barrels in succession when the trigger is pulled only once, all arranged and combined
35 to operate in the manner set forth.

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Witnesses:

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