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PATENTED OCT. 18, 1904.

S. S. LEACH.

SINGLE TRIGGER MECHANISM FOR DOUBLE BARREL GUNS.

APPLICATION FILED SEPT. 9, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

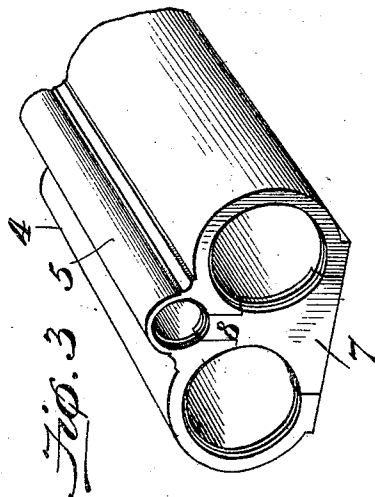
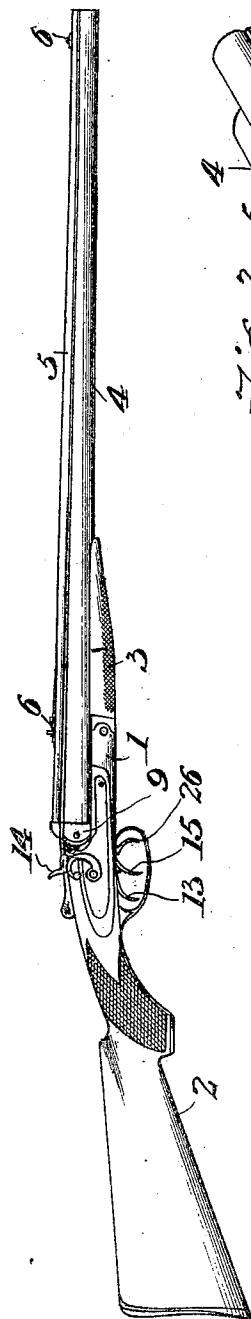


Fig. 6.

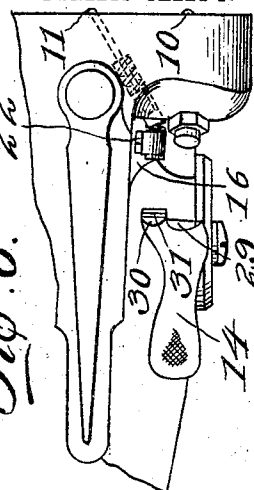
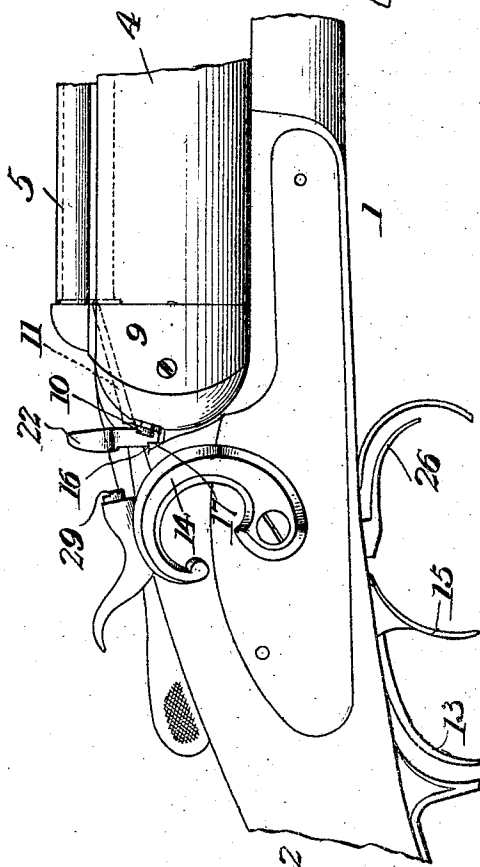


Fig. 2.



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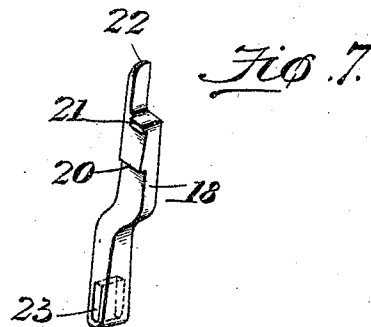
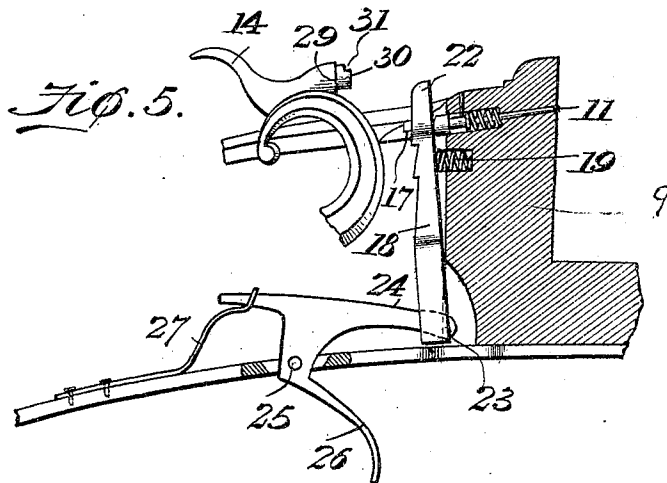
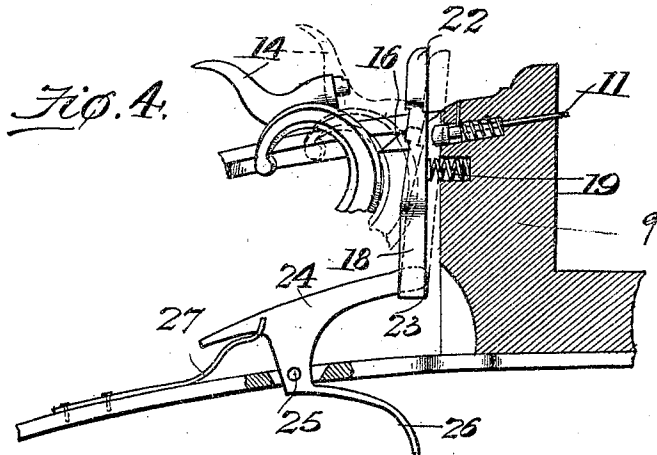
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NO MODEL.

2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

SAMUEL SHERIDAN LEACH, OF EVERETT, PENNSYLVANIA.

## SINGLE-TRIGGER MECHANISM FOR DOUBLE-BARREL GUNS.

SPECIFICATION forming part of Letters Patent No. 772,809, dated October 18, 1904.

Application filed September 9, 1903. Serial No. 172,505. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL SHERIDAN LEACH, a citizen of the United States, residing at Everett, in the county of Bedford and State of Pennsylvania, have invented a new and useful Firearm, of which the following is a specification.

This invention relates to certain improvements in firearms, and particularly to that class of firearms in which a rifle-barrel is associated with an ordinary form of double-barrel shotgun.

One of the principal objects of the invention is to provide a shotgun with a rifle-barrel so arranged and disposed that the sights will be carried by the rifle-barrel and employed in the usual manner for properly aiming the rifle as well as to permit sighting of both barrels of the shotgun.

A further object of the invention is to provide a novel form of shell-extractor common to all three of the barrels, all of the shells being extracted by a single movement.

A still further object of the invention is to provide a firing mechanism whereby the shotgun may be handled in the usual manner without risk of firing the ball-cartridge and to so arrange such firing mechanism that it may be quickly adjusted to permit the firing of the ball-cartridge when occasion requires.

A still further object of the invention is to provide a firing mechanism in which one of the hammers of the shotgun may be employed as the firing means for the ball-cartridge, provision being made for preventing accidental explosion of the shot-cartridge during or after the firing of the ball-cartridge.

A still further object of the invention is to provide a firing mechanism which may be instantly adjusted to operative position for the firing of the ball-cartridge and as quickly adjusted to inoperative position should it be desired to use the shotgun in the ordinary manner.

With these and other objects in view, as will hereinafter more fully appear, the invention consists in the novel construction and arrangement of parts hereinafter described, illustrated in the accompanying drawings, and

particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a side elevation of a firearm constructed in accordance with the invention. Fig. 2 is a similar view of a portion of the firearm, drawn on a larger scale and illustrating the firing mechanism adjusted in position for actuating the firing-pin of the ball-cartridge. Fig. 3 is a detail perspective view illustrating the three barrels and the shell-extractor common to all of such barrels. Fig. 4 is a view, partly in section, illustrating the parts in the same position as shown in Fig. 2 and showing also by dotted lines the position of all such parts for the explosion of the ball-cartridge. Fig. 5 is a view similar to Fig. 4, showing the firing mechanism adjusted in such manner as to permit the operation of the hammers on the shot-cartridges in the usual manner. Fig. 6 is a plan view of a portion of the breech-block of the firearm. Fig. 7 is a detached perspective view of the adjustable block through which firing movement of the hammer is transmitted to the firing-pin of the rifle-barrel.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

In the drawings, 1 designates the front extension of the frame, 2 the stock, and 3 the fore-stock, of an ordinary form of shotgun, the barrels 4 being of any ordinary construction. On top of and at a point between the two shotgun-barrels is arranged a rifle-barrel 5 of any desired caliber, and on said rifle-barrel are arranged sights 6, which may be of any ordinary construction commonly employed for rifles, while the barrels of the shotgun are so arranged with respect to each other and the sights as to permit accuracy of aim up to any desired distance. At the breech end of the barrels a recess is formed for the reception of the extractor 7, that is operated in the usual manner, although the extractor

instead of extending only between the two barrels of the shotgun is constructed with an upwardly-extending portion 8 in order to extract the ball-cartridge. The breech-block 9 is provided with suitable guiding-openings for the passage of firing-pins 10 for the shot-cartridges and with an auxiliary opening for the passage of a firing-pin 11 for the ball-cartridge, this latter opening being arranged at an angle to the line of the barrel, so that the head of the firing-pin will be adjacent to one or other of the hammers of the shotgun, the pin being shown in the present instance at a point near the firing-pin of the right-hand barrel.

The hammer for the left-hand barrel of the shotgun may be of the ordinary construction and operated in the usual manner by means of a trigger 13; but the hammer 14 of the right-hand barrel is of such construction as to operate on either the firing-pin of the shot-cartridge or the firing-pin of the ball-cartridge. This hammer is operated by a trigger 15 in the usual manner.

Projecting from one side of the breech-block is a lug 16, so shaped as to form a catch 17 for engagement with an adjustable bar 18. The bar 18 is of a construction best shown in Fig. 7 and is engaged by a small compression-spring 19, seated in a recess in the breech-block and normally serving to press the bar rearwardly and hold the rear face of the same in engagement with the catch 17.

The rear face of the bar 18 is cut away to form a pair of shoulders 20 and 21, and at its upper end is a finger-piece 22, by which the operator can manipulate the bar when it is desired to return the same to its lowered position. The lower end of the bar 18 is guided in a recess formed in the breech-block, and in said lower end is formed an opening 23 for the reception of the front end of a lever 24, that is pivoted at 25 in the trigger-plate, and has a lower trigger-shaped finger 26, arranged near the front end of the trigger-guard and following in general the contour thereof, so as not to interfere with the free operation of the firing-triggers. The rear end of the lever 24 is engaged by a small plate-spring 27, disposed on the trigger-plate and normally serving to depress the front end of the lever 24 and to maintain the bar 18 in its lowest position. It will be observed that the bar 18 has its upper and lower portions arranged in two different planes, so that the lower end may be received within its guide-opening in one side of the breech-block, while the upper end will project from one side of the block in a plane adjacent to the two firing-pins 10 and 11.

The right-hand hammer 14 has the usual flat end (indicated at 29) for engaging the firing-pin 10 of the shot-cartridge, and said hammer is further provided with a lug 30, that is extended inward toward the median line of

the gun, the upper portion of said lug being recessed to form a shoulder 31, which may at times engage with the shoulder 21 of the bar 18.

Under normal conditions when carrying the gun with the parts adjusted for firing both of the shot-cartridges the parts will be in a position illustrated in Fig. 5, with the bar 18 at its lowest position, and when in this position the bar 18 will be so depressed that when the hammer 14 is actuated its lug 30 will pass over the top of the shoulder 21 and to one side of the upper finger-piece 22 of said bar. The spring 27 will tend to hold the bar in this depressed position, and the small compression-spring 19 serves to hold the rear face of said bar in engagement with the catch 17.

When the sportsman desires to fire a ball-cartridge, a forward movement is imparted to the trigger-like finger-piece 26 and the bar 18 is raised from the lever 24 until the shoulder 20 on said bar is caught and held by the catch 17, as indicated in Figs. 2 and 5, and the parts are maintained in this position by the pressure of the spring 19. Should the trigger 15 be pulled and the hammer 14 forced forward while the parts are in this position, the lug 30 of the hammer would come into engagement with the bar 18 at a point slightly below the shoulder 21 and said bar would be forced to the positions shown in dotted lines, Fig. 4, the movement being transmitted to the firing-pin 11 and the ball-cartridge exploded. The point of contact between the lug 30 and the bar 18 is such that the lug will engage immediately below the shoulder 21 of the bar, and thus prevent downward movement of said bar during and after the firing operation, and this feature of the invention is considered important for the reason that during the firing movement the shoulder 21 is released from the catch 17 and would be depressed under the stress of spring 27 should it not be caught by the shoulder 31 or some similar auxiliary catch for accomplishing a similar purpose. Should the bar be allowed to descend during this firing movement, there would be danger of the hammer continuing its forward blow and striking the firing-pin 10 of the shot-cartridge, so that explosion of the latter would immediately follow the explosion of the ball-cartridge. At the completion of the firing movement the hammer and the bar 18 rest in the position shown in dotted lines in Fig. 4 and the spring 27 is exerting downward stress on said bar; but it will be observed that the shoulder 20 of the bar is in a position a trifle below the plane of the catch 17, so that when the gun is opened to insert fresh cartridges or the hammer is thrown back the bar will be released from the shoulder 31 and will be immediately restored to its lowest position by the spring 27.

Should the bar 18 be adjusted to its operative position and the sportsman desire to employ only the shot-cartridge he can immedi-

ately restore the bar to its lowest position by pressing the finger-piece 22 forward until the shoulder 20 is released from the catch 17, and this will not be difficult to accomplish, inas-  
 5 much as it is only necessary to overcome the resistance offered by the small compression-spring 19.

It will be observed that the arrangement of the finger-piece 26 within the trigger-guard  
 10 is such that with the finger in the guard a slight forward movement is all that is necessary to adjust the bar to position for firing of the ball-cartridge, while the reverse move-  
 15 ment and pull on the trigger 15 will instantly explode said cartridge.

Having thus described the invention, what is claimed is—

1. In a firearm of the double-barrel-shotgun type, a rifle-barrel, firing-pins for the several  
 20 barrels, an adjustable bar for shielding one of the shot-barrel pins and transmitting the firing movement of the hammer of said pin to the firing-pin of the rifle-barrel, and means  
 25 for interlocking the hammer and bar at the end of the firing movement.

2. In firearms, a plurality of barrels, a firing-pin for each barrel, a hammer for striking the firing-pin of the first barrel, and an  
 30 adjustable bar for transmitting operative movement of the hammer to the second firing-pin, and a shouldered lug carried by the hammer and serving to engage and lock the  
 35 bar at the completion of the forward stroke of the hammer.

3. In firearms, a plurality of barrels, a firing-pin associated with each barrel, a manu-  
 40 ally-adjustable bar for transmitting operative movement of the hammer to the second firing-pin, a catch for holding the bar in operative position, a spring for maintaining the bar in  
 45 engagement with the catch, and a shouldered lug carried by the hammer and serving to engage and lock said bar after completion of each operative movement.

4. In firearms, a plurality of barrels, a firing-pin for each barrel, a hammer for striking the firing-pin of the first barrel, a manu-  
 50 ally-adjustable bar for transmitting operative movement of the hammer to the second firing-pin, locking-shoulders carried by the bar, a catch carried by the breech-block of the fire-  
 arm, and serving to engage one of said should-  
 55 ers, and a shouldered lug carried by the ham-

mer for engagement with the second of said  
 60 shoulders.

5. In firearms, a plurality of barrels, a firing-pin associated with each barrel, a hammer  
 65 for striking the firing-pin of the first barrel, a guided bar for transmitting operative movement of the hammer to the second firing-pin,  
 70 and a lug carried by the hammer for engagement with the bar, the engagement of the lug and bar serving to prevent the striking of the  
 hammer against the first firing-pin.

6. In firearms, a plurality of barrels, a firing-pin associated with each barrel, a hammer  
 75 for striking the firing-pin of the first barrel, a bar for transmitting operative movement of the hammer to the second firing-pin, a catch  
 80 for holding said bar in operative position, a spring tending to return said bar to initial in-  
 operative position, and an interlocking means between the hammer and the bar whereby  
 85 after the completion of the operative movement, the bar will be disengaged from its catch  
 90 and maintained in elevated position by the hammer.

7. In firearms, a plurality of barrels, a firing-pin associated with each barrel, a hammer  
 85 for striking the firing-pin of the first barrel, a bar for transmitting operative movement of the hammer to the second firing-pin, a catch  
 90 for maintaining the bar in operative position, and a pivoted spring-actuated finger-piece car-  
 95 ried by said bar for adjusting the same to in-  
 operative position.

8. In mechanism of the class described, a plurality of barrels, a firing-pin for each bar-  
 100 rel, a hammer for striking the firing-pin of the first barrel, an adjustable bar for trans-  
 105 mitting operative movement of the hammer to the firing-pin of the second barrel, a piv-  
 110 oted lever connected to said bar, a spring en-  
 115 gaging the lever and normally tending to main-  
 120 tain the bar in inoperative position, and a pivot-  
 125 ally-mounted spring-actuated finger-piece dis-  
 130 posed in the front portion of the finger-guard  
 135 of said mechanism and connected to said lever, substantially as specified.

In testimony that I claim the foregoing as  
 140 my own I have hereto affixed my signature in  
 the presence of two witnesses.

SAMUEL SHERIDAN LEACH.

Witnesses:

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J. E. McDANIEL.