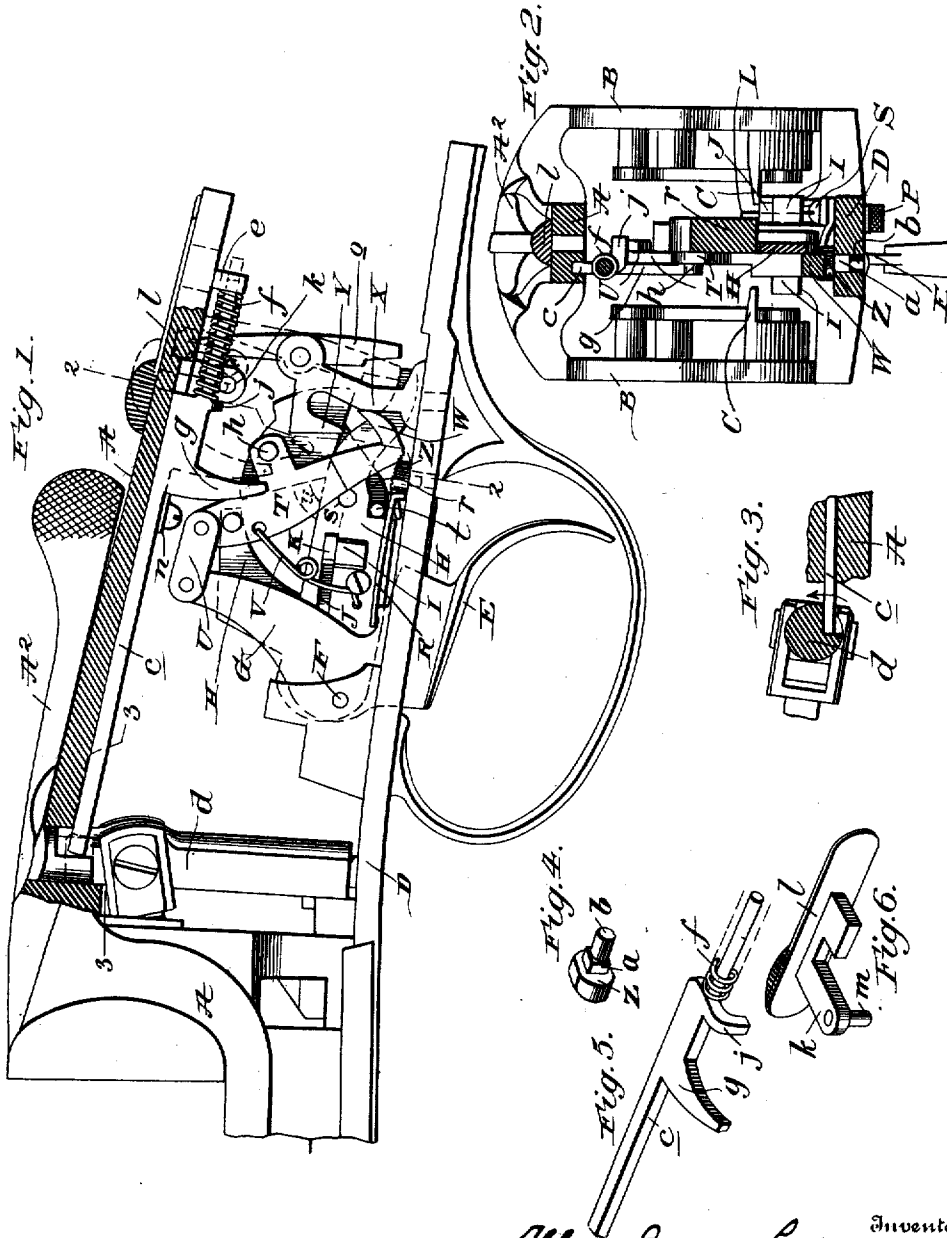


A. E. LARD.
SINGLE TRIGGER FIREARM.
APPLICATION FILED JULY 24, 1903.

1,011,972.

Patented Dec. 19, 1911.

3 SHEETS-SHEET 1.



Witness
A. Rader
D. E. Burdine

Allen Edward Lard,

Inventor,

By *Rodger Lous,*

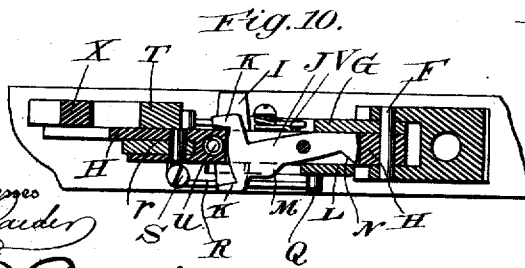
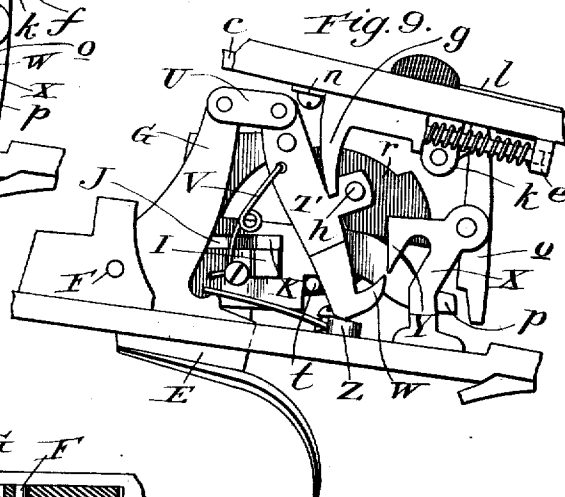
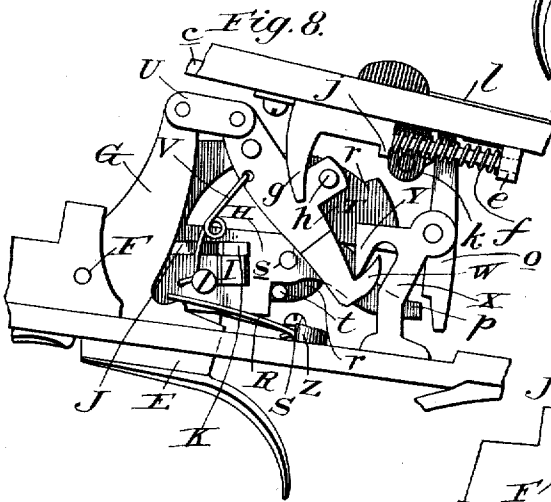
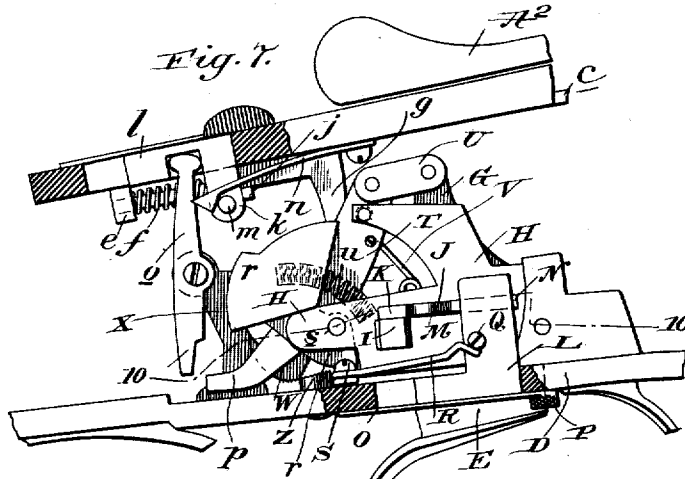
Attorney,

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3 SHEETS-SHEET 2.



Witnesses
D. E. Purdine

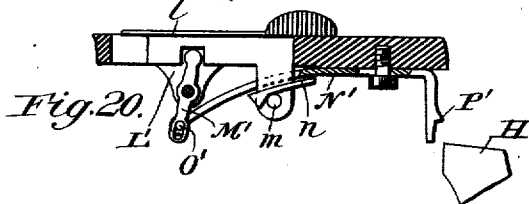
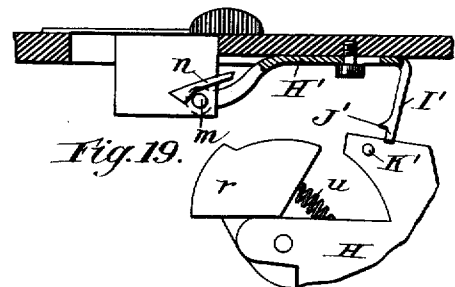
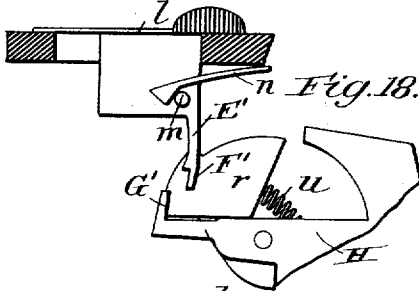
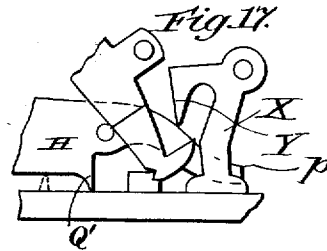
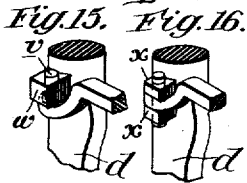
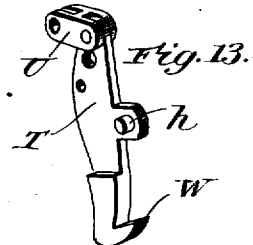
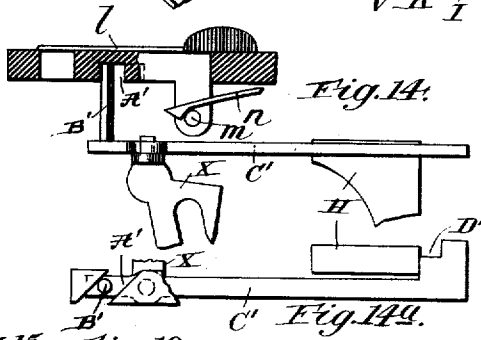
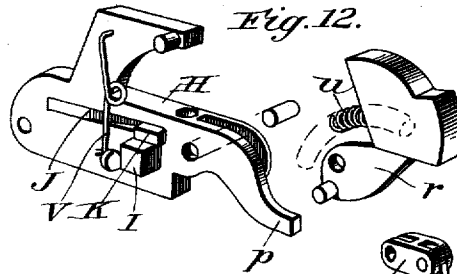
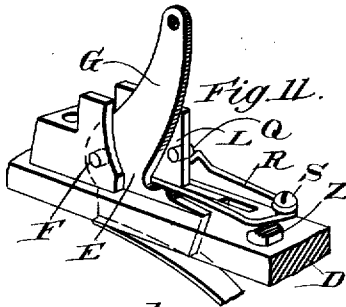
Inventor:
Allen Edward Lard,
by Dodge & Sons,
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SINGLE TRIGGER FIREARM.
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1,011,972.

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3 SHEETS—SHEET 3.



Witnesses
D. E. Purdue

Inventor:
Allan Edward Lard,
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Attorneys.

UNITED STATES PATENT OFFICE.

ALLAN EDWARD LARD, OF ST. JOSEPH, MISSOURI.

SINGLE-TRIGGER FIREARM.

1,011,972.

Specification of Letters Patent.

Patented Dec. 19, 1911.

Application filed July 24, 1903. Serial No. 166,898.

To all whom it may concern:

Be it known that I, ALLAN EDWARD LARD, a citizen of the United States, residing at St. Joseph, in the county of Buchanan and State of Missouri, have invented certain new and useful Improvements in Single-Trigger Firearms, of which the following is a specification.

My present invention pertains to single trigger firearms, the construction and advantages of which will be hereinafter set forth, reference being had to the annexed drawings wherein:

Figure 1 is a side elevation of the firing mechanism, with the parts in position ready for firing the first barrel, the lock-carrying plates being omitted for the sake of clearness; Fig. 2 a vertical sectional view, on the line 2—2, of Fig. 1, the lock-plates and sears being shown in position; Fig. 3 a horizontal sectional view, on the line 3—3, of Fig. 1; Fig. 4 a perspective view of the check-stud or post, as seen from the under face or lower end thereof; Fig. 5 a perspective view of the safety actuating-rod; Fig. 6 a similar view of the safety slide; Fig. 7 a side elevation of the mechanism viewed from the opposite side to that shown in Fig. 1; Fig. 8 a side elevation, illustrating the position of the parts as they appear in the act of discharging the first barrel; Fig. 9 a similar view, showing the position of the mechanism before or after the second discharge; Fig. 10 a horizontal sectional view, on the line 10—10 of Fig. 7, illustrating the arrangement of the selective lever; Fig. 11 a perspective view, showing the trigger plate, the trigger, the slide for actuating the selective lever, and the spring employed to normally depress the trigger and also to maintain the slide in its adjusted position; Fig. 12 a like view of the firing-plate, and the weight; Fig. 13 a perspective view of the detent-lever; Fig. 14 a side elevation, partly in section, illustrating a modified form of the safety mechanism; Fig. 14* a top plan view thereof; Figs. 15 and 16 perspective views, showing modified means for connecting the safety actuating-rod to the barrel locking-post or column; Fig. 17 a side elevation of a portion of the trigger plate, detent or spur lever and locking-post, illustrating a modification of a portion of the invention; and Figs. 18, 19 and 20, vertical sectional views, illustrative of different forms of safety mechanisms.

This invention relates to firing mechanism for fire-arms of that class set forth in my prior Patents No. 636,050, dated October 31, 1899, and No. 747,191, dated December 15th, 1903, in which a single trigger is employed to fire a plurality of barrels. The improvements embodied in this application may be stated as follows: First: The construction of an automatic safety rod that will perform the function of a set rod. Second: Elevation of firing-plate from the trigger plate, first by contact of the spur-lever with the locking-post, or secondly, by a depending or upwardly-extending projection upon one or the other member as desired, whereby a space will be left at all times between said members for the dust and dirt which inevitably work in, and which would otherwise be liable to prevent proper positioning and operation of the parts. Third: The construction of a locking-post that will eliminate lost motion in the trigger, and one that can be bent for adjustment of the parts and conformation to different drops of stocks. Fourth: The construction of a trigger and slide retaining spring which, while serving to position the trigger and slide, also serves to hold the slide or button carried thereby close up to the trigger-plate. Fifth: The construction of a spur-lever that cannot be pulled to one side of the locking-post. Sixth: Matting the lower end of the spur-lever and the top, rearwardly-inclined surface of the check-stud so as to cause an engagement of the parts, for a purpose hereinafter set forth. Seventh: The construction of a recess in the weight, for the reception of a spiral spring, whereby a long spring of relatively heavy wire may be employed, which while insuring sufficient ease of action prevents breakage as the result of corrosion; and eighth: Modification of the safety device. While these are the essentials of the present invention the claims are not to be limited thereto, as other details are present, which will be specifically claimed.

Referring first to the construction illustrated in Figs. 1 to 13 inclusive, A denotes the frame of the gun, the usual frame of a double-barrel shotgun being shown for the purpose of illustration; B (Fig. 2) the lock-plates; C the sears; and D the trigger-plate. E designates the trigger, fulcrumed at F upon the trigger-plate. Said trigger is formed with an upwardly extending blade or arm G, as in the construction shown in

my former patents. A firing-plate or carrier H is fulcrumed upon the trigger-plate, preferably upon the same pin or pivot as the trigger, and is provided with laterally-
 5 extending projections or lugs I, which project outwardly beneath the sears, as indicated in Fig. 2, while immediately above said lugs and extending forwardly thereof the plate is provided with a transverse slot
 10 or opening in which is pivotally mounted the selective lever J. The rear end of this lever, as will be seen upon reference to Fig. 10, is provided with two fingers K, which are so spaced that one or the other may be
 15 swung out over its lug I, Fig. 10, in which position it will be between said lug and the corresponding sear. To position the lever J as may be desired and to maintain it in such adjusted position, I make use of a slide
 20 L, which works in a slot formed in the trigger-plate, the upper end of the slide projecting upwardly past the lever J and working in conjunction with the bevel or cam faces M and N formed on the edge thereof, as best
 25 shown in Fig. 10. Said slide is formed or provided with a cover-plate O, for the slot in the trigger-plate, and with a finger-piece or stud P. Extending outwardly from the side of the slide is a pin or stud Q, which,
 30 as shown in Fig. 7, works in conjunction with the A-shaped end of a spring R, the stud passing to one or the other side of the apex of the spring as the slide is moved in one or the other direction. As the spring
 35 bears upon the under face of the pin or stud Q it serves to draw the cover-plate O up into close contact with the under face of the trigger-plate, thus making a close joint between the parts but still permitting them
 40 to be readily shifted to effect an adjustment of the selective lever. Spring R (see Fig. 11) is secured to the trigger-plate by a screw S, said screw preferably passing through a coil formed in the spring intermediate its free ends, one end as just
 45 noted acting in conjunction with the stud Q, while the opposite end bears on a shoulder formed on the trigger, normally holding it down. Thus it will be seen that
 50 a single-piece wire spring held in place by a single screw, effects a three-fold purpose, namely, of holding the slide in either of its adjusted positions, holding the cover-
 55 plate in close contact with the trigger-plate, and finally holding the trigger in its normal depressed position.

As in my aforesaid patent and application, a lever or arm T is pivoted to the firing-plate at its upper end, and is connected to the upper end of the trigger-arm G
 60 by means of an interposed link U. A spring V, having one end secured to the firing-plate and its opposite end to the lever at a point slightly below its fulcrum, serves to draw
 65 the lower end of the lever forward, said

end, as in the former constructions, being provided with a detent or spur W. A locking-post X, having an overhanging tooth or hook Y, is secured to the trigger-plate in line with the spur-lever T. As will be seen
 70 upon reference to Fig. 13, the lower end of the spur-lever is made materially thicker than the upper portion thereof, said upper portion being of necessity of the same thickness as the trigger-arm or blade G. There
 75 is no objection, however, to having the lower end of the spur-lever thicker, and by making the same of double thickness, as shown, I preclude all possibility of the spur W
 80 missing the tooth Y by pulling to one side thereof.

It is manifest that if the entire spur-lever were of the same thickness as the trigger-arm (one-sixteenth of an inch) the slightest
 85 play of the trigger or firing-plate in the trigger-box would be multiplied sufficiently at the end of the firing-plate to allow the spur-lever to pull out of line one-sixteenth of an inch, and thus miss the tooth. The increased thickness, however, precludes the
 90 missing of the same even if this play be present. With this construction the trigger and firing-plate may be given a considerable play in the trigger-box, so that should the
 95 lubricating oil become gummy or the parts somewhat dirty or corroded, they may freely swing upon their pivot or pivots. In other words, it is not necessary that the parts be so closely fitted as would preclude operation
 100 thereof except under the most favorable circumstances.

The lower front face of the locking-post X is given a slight forward inclination, and the parts are so proportioned that when they
 105 are in the positions indicated in Fig. 1 the detent or spur W comes into contact therewith and with a check-stud Z, and prevents the further downward movement of the parts, thus holding the lower edge or face
 110 of the firing-plate out of contact with the trigger-plate. As before noted, this space affords accommodation for any dust or dirt that may collect between the parts and which might, were this provision not made,
 115 seriously affect the proper positioning of the various portions of the gun.

The locking-post X will be made of such thickness at its upper end that the tooth may be bent up or down, and likewise of such
 120 thickness near its base that the body of the post itself may be bent forward or backward. This enables me to secure the desired adjustment of the parts, as when the trigger
 125 is pulled to fire the first barrel the detent on the spur-lever should travel a certain distance before striking the tooth, and when firing the second barrel it should miss the tooth by a very slight margin. This arrangement likewise facilitates the adjustment of the parts when the drop of the stock
 130

is altered. As will be readily appreciated, a drop in the stock will of necessity cause a drop in the rear portion of the trigger-plate D and as a consequence will draw or throw post X away from the spur W, thereby destroying the proper relation and position of the parts. By so constructing the mechanism that adjustment of the post X and hook Y may be secured without the necessity of substituting a new post, the drop in the stock may be readily accomplished.

The check-stud Z, shown in detail in Fig. 4, is provided with a rectangular or polygonal portion *a* upon its under face, and with a circular stem or post *b* extending downwardly therefrom, said members being passed into corresponding openings in the trigger-plate and the outer end of the post, the outer end of the cylindrical portion being riveted or upset as usual. The polygonal portion prevents the check-stud from turning, and consequently maintains it in proper position at all times. This construction assures the same height of check-stud for all guns, which would not be the case if the check-stud were screwed into position. The upper face of said check-stud and the lower end of the spur-lever are matted or serrated, as clearly indicated in the various views, for a purpose which will presently appear.

The tang or upper member of the frame A is provided with a groove or channel in its under face, and a safety actuating-rod *c* is mounted therein. The forward end of this rod, as will be seen upon reference to Figs. 1 and 3, abuts a shoulder formed upon a post or bolt *d*, of the barrel-locking mechanism, while the rear end of said rod is rounded and passes through an eye formed in a lug *e* extending downwardly from the tang.

A spring *f* encircles the rounded portion of the rod, bearing at one end against the lug and at the opposite end against the enlarged portion of said rod. The latter is provided or formed with a depending arm or finger *g*, standing in line with a stud *h*, extending laterally from a projection *i* on the spur-lever T. The rod *c* is also provided with a laterally-extending finger *j* which, under certain conditions, comes into contact with a downwardly-extending post *k*, connected to the safety-slide *l*, which works in a slot formed in the frame or tang. Post *k* is provided upon one side (see Fig. 7) with a laterally-extending stud or finger *m*, which operates in conjunction with the V-shaped end of a spring *n*, secured to the under side of the tang. The inclined faces of the spring serve to hold the slide in its forward or rearward adjustment.

The safety-slide *l* is provided with a notch or recess into which extends the rounded end of a lever *o*, pivoted or fulcrumed upon

the locking-post X. The lower end of said lever is notched or cut-away and stands in line with the rearwardly-extending end *p* of the firing-plate H. The notched portion of the lever may be caused to engage the rearwardly-extending end of the firing-plate when the first barrel has been fired and it is desired to lock the second barrel against discharge. When the top lever *A*² is operated to unlock the barrels, the safety-slide will be moved backwardly against the tension of the spring, at which time lever *o* will be rocked and its lower end thrown over and into engagement with the rearwardly-extending portion *p* of the firing-plate. At the same time, the downwardly-extending finger *g* will come into contact with the stud *h* and throw the spur-lever to the position shown in full lines in Fig. 1. As the gun is closed and the top lever released, the rod *c* will again move forward under stress of the spring *f*, but the safety-slide and its lever will remain in the position indicated in dotted lines in Fig. 1.

As in my former patents, I employ in this construction a weighted lever to properly position the parts and prevent discharge of the second barrel due to the recoil action of the gun. The lever in this instance, however, is of a slightly different form from that shown in said Patent No. 747,191. The lever *r* is fulcrumed or pivoted upon the firing-plate at *s*, the lower end of said lever being provided with a pin or stud *t*, which extends laterally beyond the firing-plate into the path of the lower portion of the spur-lever. The upper end of the lever *r* is weighted or made materially heavier than the remaining portion thereof, and is normally held in its rearward position by a coiled spring *u*, said spring being seated at its forward and lower end in a recess or socket formed in the upper face of the firing-plate, while its rear end enters a seat or socket formed in the lever, this latter seat or socket being bored out to a considerable depth in order that the spring may be made of comparatively heavy wire and yet be highly resilient. Where a small wire is employed, corrosion is apt to affect its life, whereas a spring made of heavy wire but of considerable length is practically indestructible and still possesses the desired resiliency.

The operation of the mechanism thus described is as follows: Assuming that the gun has been loaded, the barrels closed and the safety-slide *l* moved forward to the position indicated in Fig. 1, the first barrel may now be fired,—either the right or the left as the case may be,—according to the adjustment of the selective lever. If the parts be in the positions shown in Figs. 1 and 2, with the selective lever thrown to the right under the sear, the right-hand barrel will be first discharged

upon the movement or elevation of the trigger. A pull upon the trigger to discharge the right-hand barrel will move the parts into the positions shown in Fig. 8, the spur 5 or detent W moving up into locking engagement with the tooth Y of the locking-post X. The spur makes this movement by reason of the pressure which the sear C exerts upon the selective lever and through it upon the firing-plate H which, in turn, on account 10 of its pivotal connection with lever T, will throw the lower end of the lever rearwardly. After the first barrel is fired and the pull on the trigger is relaxed, the parts will assume the positions indicated in Fig. 9. When the 15 trigger is again pulled, the point of spur W passes the lowermost point of the hook Y before lug I engages or comes into contact with the second sear to discharge the second 20 barrel. In order to prevent any lost motion in the trigger before the first sear is lifted, the face of the post X, where the spur-lever rests, is inclined forwardly to a slight extent, as shown in Fig. 1, so that as 25 said lever is swung upwardly into engagement with the tooth Y the spur will bear against said inclined face till the sear is lifted. After the right-hand barrel is discharged, or practically simultaneously 30 therewith, the weighted upper end of lever r will be thrown forward by the recoil, at which time the pin t, carried by the lower end thereof, will come into contact with the spur-lever and tend to carry the same to its 35 rearward position, thereby blocking the involuntary pull upon the trigger due to the action of the recoil. As will be readily understood by those skilled in the art, the spring u will immediately throw the weight 40 to its rearward position and permit the lower end of the spur-lever to move over and rest upon the check-stud Z, the matted or serrated faces of the lever and stud preventing the trigger-spring R from forcing the spur-lever T downwardly to its lowermost 45 position, or to that shown in Fig. 1. In other words, the parts will come to the positions shown in Fig. 9. The second barrel may now be discharged when the trigger is again pulled. Upon elevation of the trigger 50 for discharging the second barrel, the outer end of the spur or detent W will move up adjacent to the outer forward face of the tooth Y upon the locking-post X, the parts 55 being so proportioned as to have just sufficient clearance to enable the detent W to move along the outer face of the tooth Y.

After the second barrel has been fired, the parts will come to the position shown in Fig. 60 9, or that which they occupied just previous to the discharge of said barrel. Before the gun can be again cocked after firing one or two barrels,—at which time the spur-lever rests upon the upper face of the check- 65 stud,—it becomes necessary to push said le-

ver off the check-stud or into the position shown in Fig. 1, and it is for this reason that I employ the finger g, which acts in conjunction with the laterally-extending stud or pin h. As before noted, when the safety actuating-rod c is moved rearwardly the finger g 70 engages the stud h and moves the spur-lever off the check-stud, thereby permitting the firing-plate to drop to its lowermost position and the lever o to be swung on its pivot 75 over the rearwardly-projecting portion p of said firing-plate. When it is desired to have a safety "non-automatic," the lateral finger j is removed or bent downwardly, thus leaving the actuating-rod free to move rearwardly without engaging the safety-slide 80 should the same be in its forward position. The construction of actuating-rod above described is particularly adapted to that make of guns in which the under grip-locking bolt 85 (to which the rod is usually attached) is omitted.

Instead of having the rod actuated by a shoulder formed upon the post, as shown in Fig. 3, with a spring for moving it forwardly, it may be connected to the post, as 90 illustrated in Figs. 15 and 16. In the former case the rod is provided with an upwardly-extending finger v, which fits in an opening formed in a lug or projection w 95 extending outwardly from the post. In Fig. 16 the post is shown as provided with two lugs x, x, the forward end of the rod lying between and being pin-jointed to said lugs. With these or equivalent constructions the spring f may be omitted, as the rod 100 is positively moved in both directions.

Instead of employing the safety locking lever o, which is actuated by the safety-slide, I may use the construction illustrated 105 in Figs. 14 and 14^a. In this case the under face of the safety-slide is formed with a diagonally-disposed slot or channel A', into which extends the upper end of a post or bar B', said post being connected at its lower 110 end to a lever C', fulcrumed, as shown, upon the upper end of the locking-post X, and extending forwardly beyond the front face of the firing-plate H, where it is provided with a stepped lateral projection D', one or 115 the other of the two faces of which comes into locking engagement with the firing-plate according as one or both hammers are to be locked out. As will be readily understood, the movement of the safety-slide will 120 cause the lever C' to swing in one or the other direction, according as the post B' comes into contact with one or the other of the inclined faces formed in the slide. The slot A' is made long enough to permit sufficient lost motion between the slide and post 125 for a full movement of the safety-slide.

In Fig. 18 a still further modification is shown, wherein the safety-slide is provided with a downwardly-projecting arm E', hav- 130

ing a lateral offset F', the end of said arm or the offset acting in conjunction with an upwardly-extending finger G', formed upon a rearward extension of the firing-plate.

In Fig. 19 the safety-slide is shown as connected to a sliding bar H', supported upon the under face of the frame or tang, and carrying at its forward end a downwardly-projecting arm I', having a rearwardly-projecting offset J'. The end of the arm and the offset coact with a pin or stud K', extending outwardly from the firing-plate, locking one or both barrels against firing, as the case may be.

Fig. 20 illustrates a further modification of the safety device, in which an ear L' extends downwardly from the tang or frame, to which ear is pivoted a lever M', the upper end thereof working in a recess formed in the safety-slide, while the lower end is provided with an elongated slot. A slide N' is secured to the under face of the tang or frame, said slide carrying at its rear end a pin O', which works in said slot. The forward end of the slide is bent downwardly and provided with a shoulder or offset P', the end of the slide and the shoulder coacting with the firing-plate to lock out one or both barrels, as the case may be.

With all these modified forms of safety device it will, of course, be understood that the slide may or may not be operated by the safety actuating-rod, as desired.

In guns having a very light trigger-pull and a non-automatic safety device I prevent the premature firing of the first or second barrel by providing a notch in the lower end of the spur-lever and a corresponding notch in the check-stud, to receive the same, as shown in Fig. 17. This engagement of the spur-lever and check-stud prevents the firing-plate from being jarred up against the sears, either by the forcible closing of the gun or the impact of the same with the shoulder, in the manner described in my Patent No. 747,191, application for which was co-pending herewith. When this construction is used, it becomes necessary to leave a slight space between the end of the spur-lever and the locking-post, in order that the notch in the spur-lever may clear the notch in the check-stud, and in this case I hold the firing-plate away from the trigger-plate either by a spur Q', depending from the firing-plate, or by a spur extending upwardly from the trigger-plate, as clearly shown in dotted lines in Fig. 17. As will be noted upon reference to said figure, the projection is placed well forward or adjacent to the trigger, so that any drop in the stock will not vary the relation of the firing-plate to the trigger-plate. It is to be noted that the firing-plate swings about a fixed fulcrum and that the point formed upon said plate will cut through any dirt which may collect,

as it swings directly down toward the trigger-plate, not moving lengthwise thereon, and consequently does not have to plow through any dirt which might accumulate on the plate. Inasmuch as the firing-plate is thus at all times held in its proper position with reference to the trigger-plate, it forms a ready means by which the measurements for the adjustments of the sears may be made. This form of construction accomplishes the same result as is obtained by providing for contact between the spur-lever and the locking-post, as before described, giving a space between the firing-plate and trigger-plate for the collection of such foreign matter as will always work in between the parts.

While the invention has been illustrated in conjunction with a usual and well-known type of breech-loading shotguns, it is, of course, manifest that it may be employed with any fire-arm employing a plurality of barrels and a single trigger for operating the sears.

Having thus described my invention, what I claim and desire to secure by Letters-Patent is:

1. In a breech-loading firearm, a rotatable post or bolt for actuating the barrel-locking mechanism; a top lever for moving the bolt; a firing mechanism; a safety rod moved rearwardly by said bolt as the same is operated to unlock the barrels; a lock-out device for the firing mechanism; and means actuated by the rod as it is moved rearwardly to properly position the firing mechanism for engagement with the lock-out device.

2. In a breech-loading firearm, the combination of a firing mechanism; a safety rod; a lock-out device for said firing mechanism; and means carried by the rod, acting upon and properly positioning the firing mechanism preparatory to engagement of the lock-out device therewith.

3. In a breech-loading firearm, the combination of a locking device for the barrel; a rod in operative relation with said locking device; a safety mechanism operated by said rod; a firing mechanism; and means carried by the rod to properly position the firing mechanism preparatory to engagement of the safety mechanism therewith.

4. In a breech-loading firearm, the combination of a locking device for the barrel; a rod in operative relation with said locking device; a safety mechanism operated by said rod; a firing mechanism; means carried by said rod to properly position the firing mechanism preparatory to engagement of the safety mechanism therewith; and means for moving said rod out of the path of the firing mechanism as the barrel is locked.

5. In a breech-loading firearm, the combination of a locking device for the barrel;

a firing mechanism; a safety device for the firing mechanism; and means operated by the locking device to properly position the firing mechanism for engagement of the safety device therewith.

6. In a breech loading fire arm, the combination of a locking device for the barrel; a firing mechanism; a safety device for the firing mechanism; a rod in operative relation with the safety device and with the barrel locking device and being actuated by the latter as the locking device is operated to unlock the barrel; and a connection between said rod and the firing mechanism operative only as the locking device is actuated to release the barrel, to properly position said mechanism for engagement with the safety device.

7. In a breech-loading firearm, the combination of a locking device for the barrel; a firing mechanism; a safety device for said firing mechanism; a rod in operative relation with said locking device; and an arm extending from said rod into the path of the firing mechanism to properly position said mechanism for engagement with said safety device.

8. In a breech-loading firearm, the combination of a locking device for the barrel; a firing mechanism; a safety device; a rod in operative relation with and actuated by said locking device; connections intermediate said rod and the safety device; and an arm extending from said rod into the path of and engaging the firing mechanism.

9. In a breech-loading firearm, the combination of a locking device for the barrel; a firing mechanism; a rod carried by the frame of the piece, said rod being provided with a depending arm, and a laterally-extending finger; operative connections intermediate the rod and barrel-locking device; a projection carried by the firing mechanism standing in the path of travel of the depending arm; a safety-slide; a projection carried thereby, said projection standing in the path of the laterally-extending finger; and a safety-lever actuated by the slide to lock the firing mechanism out of action, substantially as described.

10. In a breech-loading firearm, the combination of a locking device for the barrel; a firing mechanism; a rod carried by the frame of the arm and bearing at its forward end against a shoulder formed upon the locking device; a spring acting on the rod to hold the same in its forward position; an arm extending downwardly from the rod; a projection extending outwardly from the firing mechanism into the path of movement of said arm; a laterally-projecting finger also carried by the rod; a safety-slide mounted in the frame of the arm, said slide likewise having a projection which extends downwardly into the path of movement of

the finger; and a lever in operative relation with said slide to lock the firing mechanism against action, substantially as described.

11. In a firearm, the combination of a trigger-plate; a firing-plate pivotally mounted thereon; a fixed post extending upwardly from the trigger-plate; a check stud; and a member pivotally connected to the firing-plate, the lower end of said member bearing against said post and check stud and holding the firing-plate out of contact with the trigger-plate when the former is in its lowermost position.

12. In a firearm, the combination of a trigger-plate; a firing-plate pivotally mounted thereon; a spur-lever pivotally connected to said firing-plate; a check stud; and a locking-post extending upwardly from the trigger-plate into line with the lower end of the spur-lever, the parts being so proportioned that the lever makes contact with the forward face of the post and prevents contact between the adjacent faces of the firing-plate and the trigger-plate.

13. In a firearm, the combination of a trigger-plate; a firing-plate pivotally mounted thereon; a locking-post extending upwardly and slightly forward from the trigger-plate; and a spur-lever pivotally connected to the firing-plate, the outer end of said lever and the forward face of the post being so proportioned and arranged that they make close contact with each other and maintain said contact as the firing-plate and lever are moved upwardly in the act of lifting the sear, substantially as and for the purpose described.

14. In a firearm, the combination of a trigger-plate; a firing-plate pivotally mounted thereon; a locking-post extending upwardly from the trigger-plate, the lower portion or face of said post being inclined forward to a slight extent; and a spur-lever pivotally mounted on the firing-plate, and connected to the trigger, the under face of the spur on said lever bearing against said forwardly-inclined face on the post as the firing-plate and lever are elevated, thereby eliminating lost motion in the trigger, substantially as described.

15. In a firearm, the combination of a trigger-plate; a trigger pivotally mounted thereon; a firing-plate also pivotally mounted on the trigger-plate; a spur-lever pivoted on the upper portion of the firing-plate; a link connecting the upper end of said lever and the trigger; and a locking-post extending upwardly from the trigger-plate, the front face of the post being inclined forwardly to a slight extent, whereby the under face of the spur on the lever will bear against said face as the firing-plate and lever are given their initial movement in the act of discharging the piece.

16. In a firearm, the combination of a

trigger-plate; a firing-plate pivoted thereon; a spur-lever carried by said firing-plate; and a locking-post mounted upon the trigger-plate and adjustable toward and from the spur-lever, whereby upon the drop or elevation of the stock the post may be adjusted with reference to the spur lever to cause said parts to properly function, substantially as described.

17. In a firearm, the combination of a trigger-plate; a firing-plate pivoted thereon; a spur-lever carried by said firing-plate; and a locking-post mounted upon the trigger-plate, said post being normally rigid but capable of being bent to secure adjustment for different positioning of the parts, whereby upon the drop or elevation of the stock the post may be adjusted with reference to the spur lever to cause said parts to properly function, substantially as described.

18. In a firearm, the combination of a trigger-plate; a trigger pivoted thereon; a firing-plate also pivoted to said trigger-plate; a selective lever carried by the firing-plate; a slide for positioning the lever; and a one-piece spring secured to the trigger-plate, the ends of said spring bearing, respectively, upon the trigger and the slide and serving to depress the former and to elevate the latter.

19. In a firearm, the combination of a trigger-plate; a trigger pivoted thereon; a selective firing mechanism an actuating slide for said firing mechanism working in a slot formed in the trigger-plate; and a single-piece spring secured to a fixed portion of the arm, said spring serving to normally depress the trigger and to maintain the slide in close contact with the under face of the trigger-plate.

20. In a firearm, the combination of a trigger-plate; a trigger pivoted thereon; a selective firing mechanism an actuating slide for said firing mechanism mounted and working in a slot formed in the trigger-plate; a stud extending laterally from said slide; and a single-piece spring secured to the trigger-plate, one end of said spring being formed with an A-shaped portion and passing under the stud, while the opposite end thereof bears upon the trigger and normally depresses the same.

21. In a firearm, the combination of a trigger-plate; a trigger pivoted thereon; a selective firing mechanism an actuating slide for said firing mechanism; and a single-piece spring secured to the trigger-plate, one end of said spring bearing upon and depressing the trigger, while the opposite end thereof bears on the slide, drawing the same up against the outer face of the trigger-plate, and holding the slide in its adjusted position.

22. In a firearm, the combination of a trigger-plate; a firing-plate pivoted there-

on; a locking-post mounted upon the trigger-plate adjacent to the rear end of the firing-plate; and a spur-lever carried by the firing-plate and coacting with the locking-post, the lower end of said lever being made materially broader or thicker than the upper portion thereof, substantially as and for the purpose described.

23. In a firearm, the combination of a trigger-plate; a firing-plate pivoted thereon; a trigger pivoted to the trigger-plate and provided with an arm extending upwardly adjacent to said plate; a spur-lever pivotally connected to the upper portion of the firing-plate; a connection intermediate the upper end of the lever and the trigger-arm; and a locking-post standing in line with the lower end of the spur-lever, said lower end being of such thickness as to always insure engagement between the spur and the post notwithstanding lateral play or movement of the firing-plate and the lever carried thereby.

24. In a firearm, the combination of a trigger-plate; a firing-plate pivoted thereon; a spur-lever pivoted to said firing-plate, the lower end of said lever being matted; a locking post; and a check-stud located on the trigger-plate in front of the locking-post, the upper face of said stud inclining downwardly toward the post and being matted, substantially as described.

25. In a firearm, the combination of a trigger-plate; a trigger pivoted thereon; a firing-plate also pivoted on the trigger-plate; a spur-lever pivoted to the firing-plate, the lower end of said lever being matted; a link connecting the lever and trigger; a locking-post extending upwardly from the trigger-plate; and a check-stud located at a point in front of the locking-post, the upper face of said stud inclining rearwardly and being matted.

26. In a firearm, the combination of a trigger-plate; a trigger pivoted thereon; a firing-plate also pivoted on the trigger-plate; a spur-lever pivoted to the firing-plate, the lower end of the lever being matted; a link connecting the upper end of the lever to the trigger; a weighted lever pivoted upon the firing-plate, said lever being provided with a lateral extension or projection which stands in the path of movement of the lower end of the spur-lever; a locking-post secured to the trigger-plate adjacent to the end of the spur-lever; and a check-stud located at a point in front of the post, the upper face of said stud being matted and inclined rearwardly.

27. In a breech-loading firearm, the combination of a single trigger; a pair of hammers; vertically movable firing mechanism; means for holding said mechanism in a position intermediate its extremes of movement when in place to release the sec-

ond hammer; a safety rod; and a safety device actuated by said rod, locking the firing mechanism against movement, said firing mechanism being moved from its intermediate position to its lowest position by the movement of the safety rod.

28. In a breech-loading firearm, the combination of a pivoted firing-plate; means for holding it in a partially elevated position after the discharge of the arm; a locking device for the barrels; means actuated by said locking device as the same is operated to release the barrels for moving said holding means to its normal position, whereby the firing-plate may be swung downward to its normal or initial position; and a safety device for locking the firing-plate when it is in its lowermost position.

29. In a firearm, the combination of a trigger-plate; a firing-plate pivoted upon a fixed fulcrum carried by said trigger-plate, the rear end of the firing-plate swinging directly toward and from the trigger-plate; a trigger; connections intermediate said trigger and the firing-plate; and means extending downward from the firing-plate and at a point adjacent to the trigger serving, when the parts are in their lowermost position, to hold the firing-plate out of contact

with the trigger-plate and to pass through any foreign matter resting upon the trigger-plate, whereby the parts will properly position notwithstanding the accumulation of dirt or foreign matter between the lower face of the firing-plate and the trigger-plate.

30. In a firearm, the combination of a trigger-plate; a firing-plate swinging about a fixed fulcrum carried by the trigger-plate; a trigger connected to the firing-plate; and a relatively sharp projection extending downward from the firing-plate at a point adjacent to the trigger, said projection moving directly toward and from the trigger-plate and serving, as the parts reach their lowermost position, to hold the firing-plate elevated from the trigger-plate to a slight extent, whereby the parts will properly position notwithstanding the accumulation of foreign matter upon the upper face of the trigger-plate.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALLAN EDWARD LARD.

Witnesses:

HORACE A. DODGE,
WILLIAM W. DODGE.