L. B. TAYLOR.

ONE TRIGGER MECHANISM FOR DOUBLE BARREL BREECH LOADING SMALL ARMS.

APPLICATION FILED JAN. 28, 1910.

**970,405.** **Patented Sept. 13. 1910.**

*Fig. 1.*

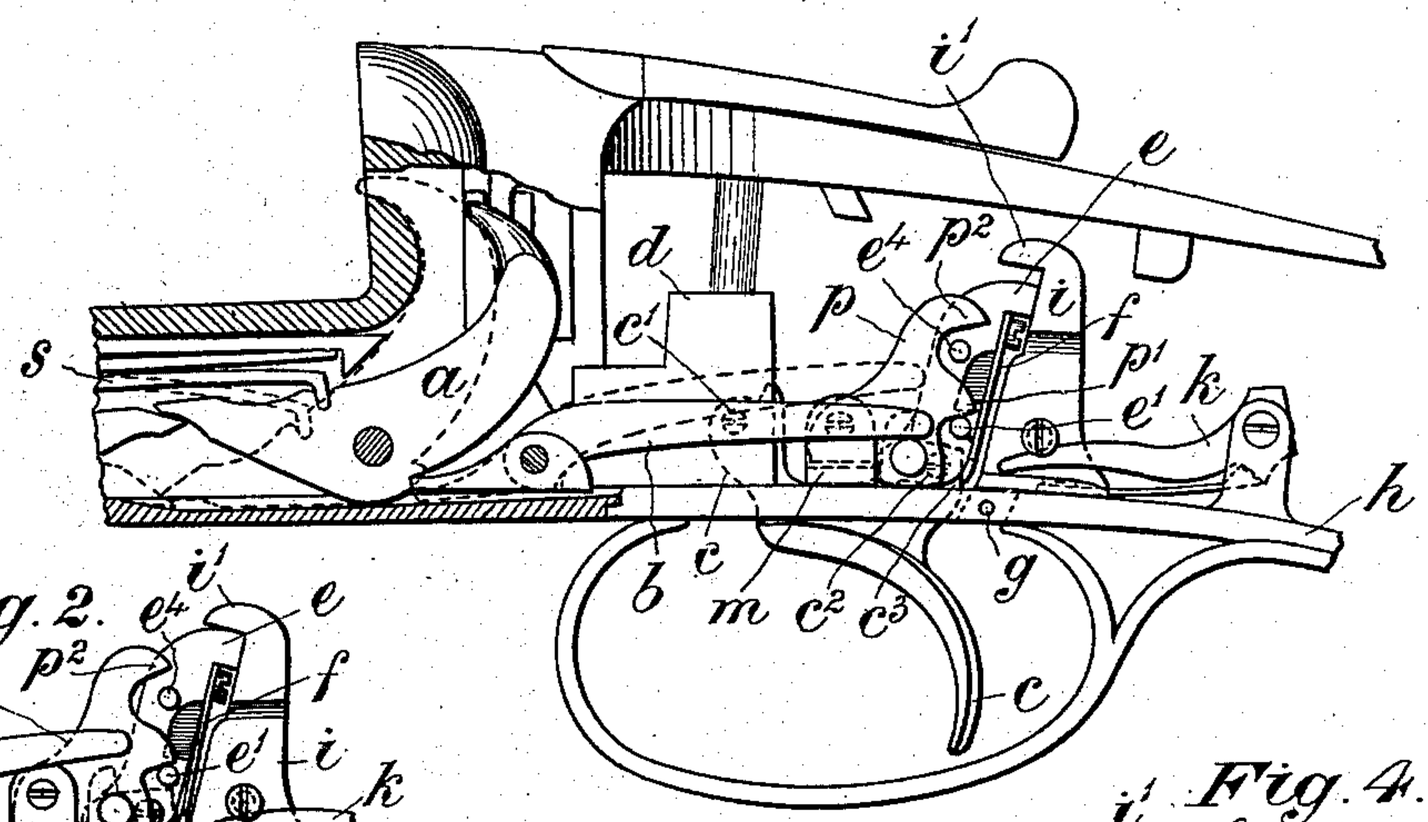



*Fig. 2.*

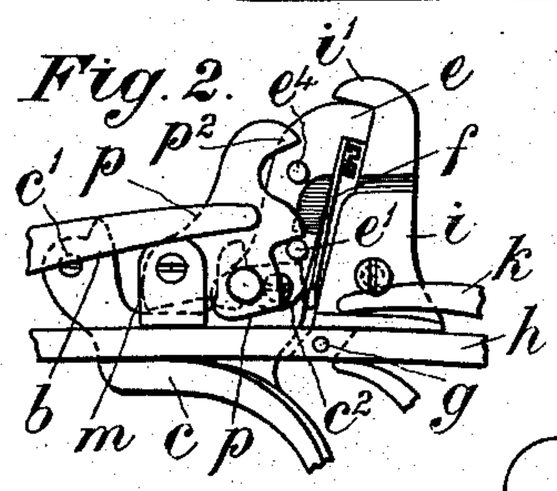



*Fig. 3.*

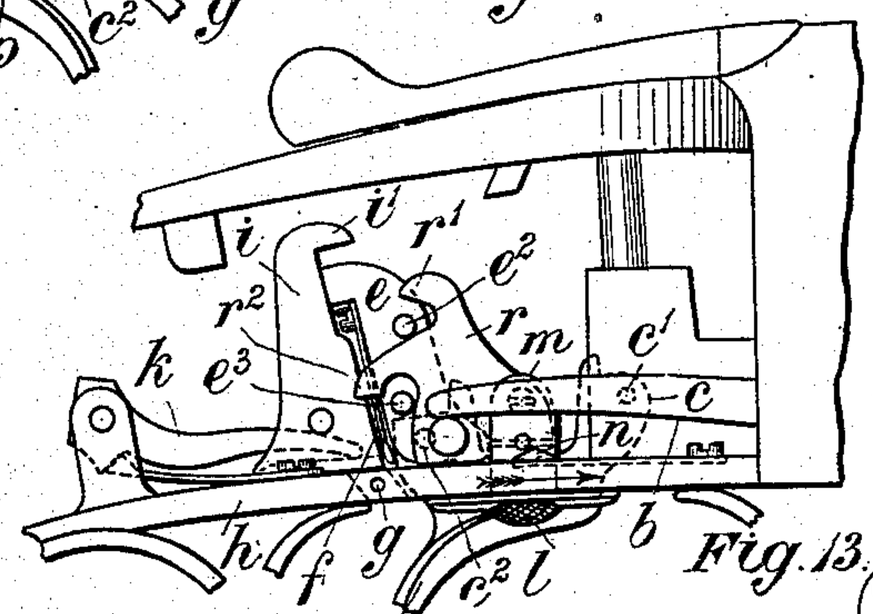



*Fig. 4.*

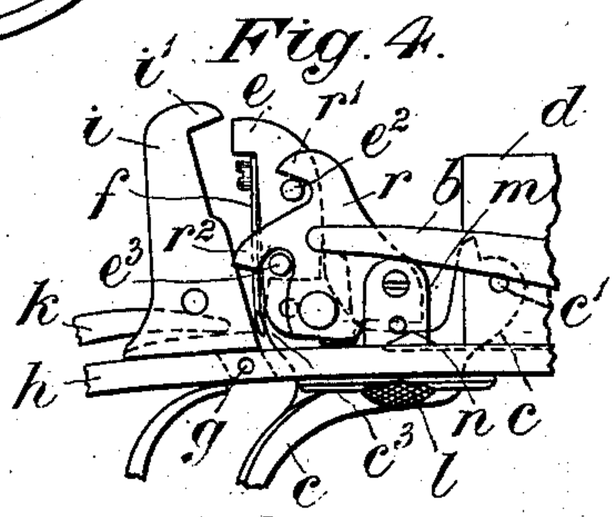



*Fig. 14.* *Fig. 16.* *Fig. 15*

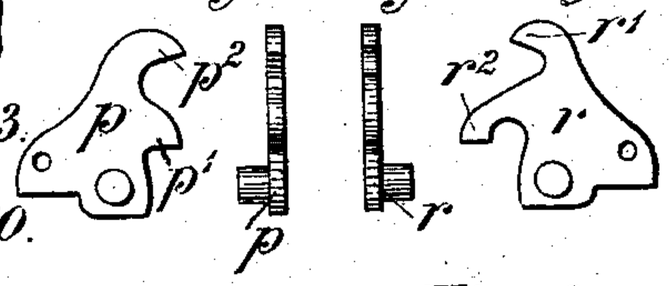



*Fig. 13.*

*Fig. 9.* *Fig. 10.*

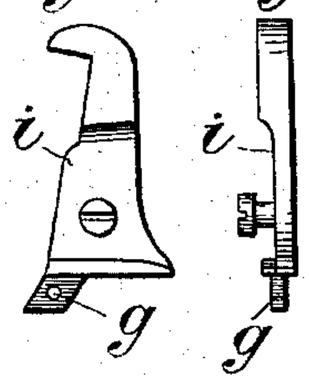



*Fig. 5.*

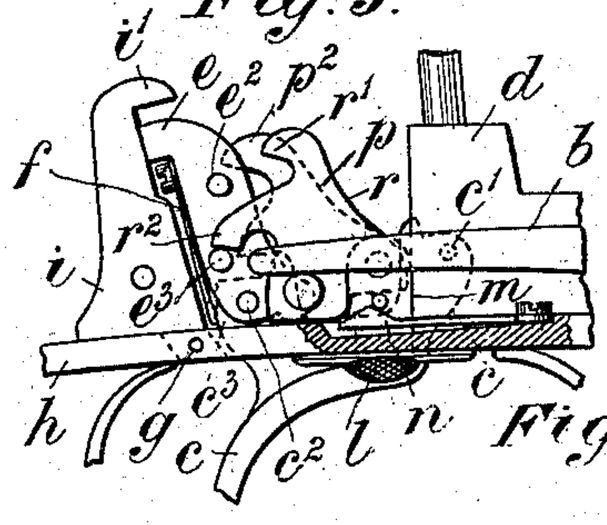



*Fig. 7.* *Fig. 8.*

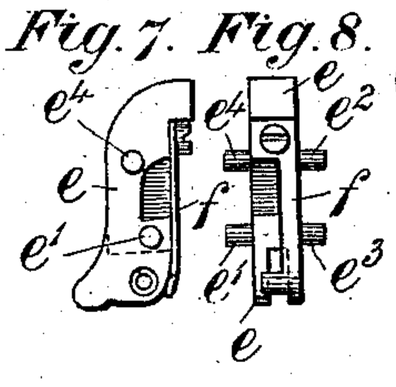



*Fig. 6.*

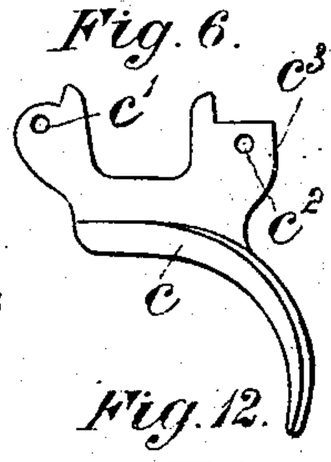



*Fig. 12.*

*Fig. 18.*

*Fig. 17.*

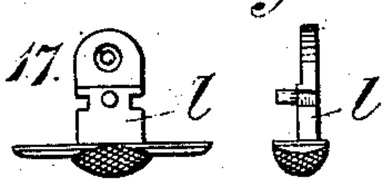
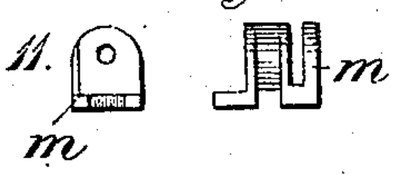



*Fig. 11.*

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# UNITED STATES PATENT OFFICE.

LESLIE BOWN TAYLOR, OF BOURNBROOK, NEAR BIRMINGHAM, ENGLAND.

## ONE-TRIGGER MECHANISM FOR DOUBLE-BARREL BREECH-LOADING SMALL-ARMS.

970,405. Specification of Letters Patent. **Patented Sept. 13, 1910.**

Application filed January 28, 1910. Serial No. 540,611.

*To all whom it may concern:*

Be it known that I, LESLIE BOWN TAYLOR, a subject of the King of Great Britain, residing at Grange Road, Bournbrook, near Birmingham, England, have invented certain new and useful Improvements in One-Trigger Mechanism for Double-Barrel Breech-Loading Small-Arms, of which the following is a specification.

My invention relates to one trigger mechanism for double barrel guns and consists of the new construction and arrangement or combination of parts hereinafter described whereby a firing mechanism is obtained which is actuated by the pulling of one trigger to effect the alternate release of the sears of the double barrel gun, the same two pull motion of the trigger being required for the successive release of the sears of the cocked hammers whether the gun is uncharged or loaded, as the firing mechanism is not actuated by recoil throughout any portion of its releasing action. Further by the new construction and arrangement or combination of parts a reduced weight of trigger pull may be obtained without impairing or diminishing the requisite safety of sear engagement with the cocked hammers, or subjecting the said engagement to the danger of premature or involuntary disturbance caused by recoil or other effect arising from the explosion of the cartridge.

I will describe my invention in connection with the accompanying drawing Figure 1 of which represents partly in elevation and partly in section so much of a breech loading small arm as is necessary for the understanding of my invention the hammers and sears of the lock mechanism being represented in full lines in their cocked positions and being indicated in dotted lines in their discharged positions, the selective mechanism to be hereinafter described being arranged for the discharge of the left hand barrel on the first pull on the trigger and the discharge of the right hand barrel on the second pull on the trigger. Fig. 2 represents certain of the parts shown in Fig. 1 in the positions which they take when pressure is applied to the trigger for the discharge of the left hand barrel. Fig. 3 is a similar view to Fig. 1 looking at the opposite side of the gun to that represented in the said Fig. 1; and Fig. 4 shows the positions which the parts at the right hand side take when the trigger is pulled for the discharge of the right hand barrel. Fig. 5 represents a portion of the mechanism, looking at the right hand side of the gun, showing the parts in the positions which they occupy after the movement of the push piece or slide of the selective mechanism of the firing mechanism to provide for the firing of the right hand barrel on the first pull of the trigger. Figs. 6 to 18 both inclusive represent parts of the mechanism detached as is hereinafter particularly described.

The same letters of reference indicate the same parts in the several figures of the drawing.

$a$ are the hammers (one only being seen in Fig. 1) and $b$ are the sears; $c$ is the single trigger, shown separately in side elevation in Fig. 6, which is jointed at $c^1$ to the fixed or stationary block $d$ as is usual. Pivoted at $c^2$ to the trigger $c$ is a vertical lever $e$, shown separately in side and edge view in Figs. 7 and 8 respectively. The said lever $e$ is capable of a slight rocking motion on the pivot $c^2$ but the spring $f$ on its back edge tends to preserve it in the position represented in Fig. 1, the acting end of the said spring bearing on the heel $c^3$ of the trigger $c$. The rocking lever $e$ is provided with side projecting studs $e^1$, $e^2$, $e^3$, $e^4$.

Pivoted at $g$ to the trigger plate $h$, at the rear of the rocking lever $e$ is an upwardly projecting clutch arm $i$, shown separately in side and edge view in Figs. 9 and 10 respectively, the said clutch arm $i$ being retained against too free movement by the spring pressed arm $k$.

$m$ is a block, shown separately in side and end elevation in Figs. 11 and 12 respectively, capable of a limited sliding motion on the trigger plate $h$ the said block being moved by the push piece $l$ and retained in one or other position by the spring $n$ best seen in Fig. 5. The push piece $l$ is shown separately in side and end elevation in Figs. 17 and 18 respectively.

Pivoted to the block $m$ are two arms or sear lifters $p$, $r$ each having two heels marked $p^1$, $p^2$, $r^1$, $r^2$ respectively. The left hand sear lifter $p$ is shown detached in Figs. 13 and 14, and the right hand sear lifter $r$ is shown detached in Figs. 15 and 16.

The action of the parts is as follows:—The parts being in the positions represented in Fig. 1, that is to say, the hammers being cocked and the mechanism arranged for the release of the left hand hammer $a$ on

the first pull on the trigger *c*, the rocking lever *e* is lifted on the pull on the trigger and the stud $e^1$ acting on the heel $p^1$ of the sear lifter *p* the sear lifter *p* and left hand sear *b* are raised and the left hand hammer *a* released, the released hammer being actuated by the main spring *s* in the ordinary way. The pressure of the stud $e^1$ of the rocking lever *e* on the heel $p^1$ preserves the upper end of the rocking lever in close contact with the jointed clutch arm *i* and in the raised position of the rocking lever *e* its upper end is jammed or clutched into firm contact with an overhanging part $i^1$ of the clutch arm *i* so that the two parts are temporarily interlocked as is represented in Fig. 2, and remain so until the pressure of the finger is positively removed from the trigger, any involuntary release of the trigger due to recoil of the gun on firing being accompanied by a simultaneous swinging of the two parts in clutch engagement in the same direction, which preserves them interlocked. On the release of the trigger a second pull thereon brings the stud $e^2$ into contact with the heel $r^1$ of the right hand sear lifter *r* (see Fig. 4) and effects the lifting of the said right hand sear lifter and the right hand sear and the release of the right hand hammer. When it is desired to discharge the right hand barrel on the first pull on the trigger the shooter has only to press forward the push piece *l* in the direction of the arrow in Fig. 3 when the sear lifters *p*, *r* are brought into the positions with respect to the studs of the rocking lever *e* represented in Fig. 5; in this position of the parts the trigger when pulled the first time brings the stud $e^3$ against the heel $r^2$ of the right hand sear lifter *r* and thereby effects the lifting first of the right hand sear *b*. On the second pull on the trigger the stud $e^4$ is brought against the heel $p^2$ of the left hand sear lifter *p* which effects the lifting of the left hand sear *b*.

From the description hereinbefore given it will be understood that the requisite safety against a premature discharge of the second barrel results from the construction and arrangement of the several parts of the firing mechanism and the same does not depend upon any extraneous and separate bolting device or devices.

For safety when carrying the gun loaded the arrangement admits of the use of nearly any of the usual safety mechanisms in connection therewith and for this reason I have not shown any one in connection with the said gun.

Having now described my invention what I claim as new and desire to secure by Letters Patent is:—

1. A one trigger mechanism for double barrel breech loading small arms, consisting essentially of a trigger, a rocking lever jointed to the rear end of the blade of the trigger, a clutch arm jointed to the trigger plate behind the rocking lever, said clutch arm having an overhanging part with which the rocking lever engages when the trigger is pulled for the discharge of the first barrel, and a pair of jointed arms or sear lifters which are raised by studs on the opposite sides of the rocking lever acting on heels on the rear ends of the sear lifters, one only of the sear-lifters being raised on the first pull on the trigger, the sear lifters having projections with which the rear or tail ends of the sears contact or nearly so when the hammers are in their cocked positions.

2. A one trigger mechanism for double barrel breech loading small arms, consisting of the combination with one trigger of a rocking lever jointed to the rear end of the said trigger, a clutch arm jointed to the trigger plate behind the rocking lever, said clutch arm having an overhanging part with which the rocking lever engages when the trigger is pulled for the discharge of the first barrel, and a pair of jointed arms or sear lifters which are raised by studs on the opposite sides of the rocking lever acting on heels on the rear ends of the sear lifters, only one of the sear-lifters being raised on the first pull on the trigger, the sear lifters having projections with which the rear or tail ends of the sears contact or nearly so when the hammers are in their cocked positions and means for adjusting the sear lifters with respect to the studs on the rocking lever so as to permit the discharge of either barrel first at the will of the shooter.

3. A one-trigger mechanism for double-barrel breech-loading small arms, consisting essentially of a trigger; a rocking lever actuated by the trigger; a pair of jointed arms or sear-lifters; and studs or projections on the rocking lever disposed to act on the sear-lifters when the rocking lever is actuated by the trigger, said studs or projections being so arranged that one only of the sear-lifters is raised on the first pull on the trigger, the sear-lifters having projections with which the rear or tail ends of the sears contact or nearly so when the hammers are in their cocked positions.

4. A one-trigger mechanism for double-barrel breech-loading small arms consisting of a trigger; a rocking lever actuated by the trigger; a pair of jointed arms or sear-lifters; studs or projections on the rocking lever disposed to act on the sear-lifters when the rocking lever is actuated by the trigger, said studs or projections being so arranged that one only of the sear-lifters is raised on the first pull on the trigger, the sear-lifters having projections with which the rear or tail ends of the sears contact or nearly so when the hammers are in their cocked positions; and means for adjusting the sear-lifters with

respect to the studs on the rocking lever so as to permit the discharge of either barrel first at the will of the shooter.

5. A one-trigger mechanism for double-barrel breech-loading small-arms consisting essentially of a trigger; a rocking lever actuated by the trigger; a pair of jointed arms or sear-lifters; studs or projections on the rocking lever disposed to act on the sear-lifters when the rocking lever is actuated by the trigger, said studs or projections being so arranged that one only of the sear-lifters is raised on the first pull on the trigger, the sear-lifters having projections with which the rear ends or tails of the sears contact or nearly so when the hammers are in their cocked positions; and blocking mechanism for engaging with the rocking lever on the first pull on the trigger and thereby preventing an inadvertent firing of the second barrel.

6. A one-trigger mechanism for double-barrel breech-loading small arms, consisting of a trigger; a rocking lever actuated by the trigger; a pair of jointed arms or sear-lifters; studs or projections on the rocking lever disposed to act on the sear-lifters when the rocking lever is actuated by the trigger, said studs or projections being so arranged that one only of the sear-lifters is raised on the first pull on the trigger; means for adjusting the sear-lifters with respect to the studs or projections on the rocking lever so as to permit the discharge of either barrel first at the will of the shooter, the sear-lifters having projections with which the rear or tail ends of the sears contact or nearly so when the hammers are in their cocked positions; and blocking mechanism for engaging with the rocking lever on the first pull on the trigger and thereby preventing an inadvertent discharge of the second barrel.

7. A one-trigger mechanism for double-barrel breech-loading small arms, comprising a trigger pivoted at its forward upper end to a fixed portion of the arm; a rocking lever pivotally connected to the upper rear portion of the trigger; a block mounted on the upper portion of the trigger and slidable thereon to one or another position to set the mechanism so as to first discharge the right or the left-hand barrel; a pair of sear-lifters, one for each sear, pivotally connected to the block, each lifter being provided upon its rear face with two heels or projections, one above the other; a pair of studs projecting from each side of the lever and adapted to coöperate with the heels upon the sear-lifters; a clutch-arm pivotally mounted upon the trigger plate and adapted to coöperate with the lever aforesaid; and a spring carried by the lever and adapted to position the same with reference to the clutch-arm.

8. A one-trigger mechanism for double-barrel breech-loading small arms, comprising a trigger pivoted at its forward upper end to a fixed portion of the arm; a rocking lever pivotally connected to the upper rear portion of the trigger; a block mounted on the upper portion of the trigger and slidable thereon to one or another position to set the mechanism so as to first discharge the right or the left-hand barrel; a pair of sear-lifters, one for each sear, pivotally connected to the block, each lifter being provided upon its rear face with two heels or projections, one above the other; a pair of studs projecting from each side of the lever and adapted to coöperate with the heels upon the sear-lifters; a clutch-arm pivotally mounted upon the trigger plate and adapted to coöperate with the lever aforesaid; a spring carried by the lever and adapted to position the same with reference to the clutch-arm; and a spring-pressed arm serving to prevent the too free movement of the clutch-arm.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LESLIE BOWN TAYLOR.

Witnesses:
RICHARD SKERRETT,
ARTHUR JOHN POWELL.