

No. 814,584.

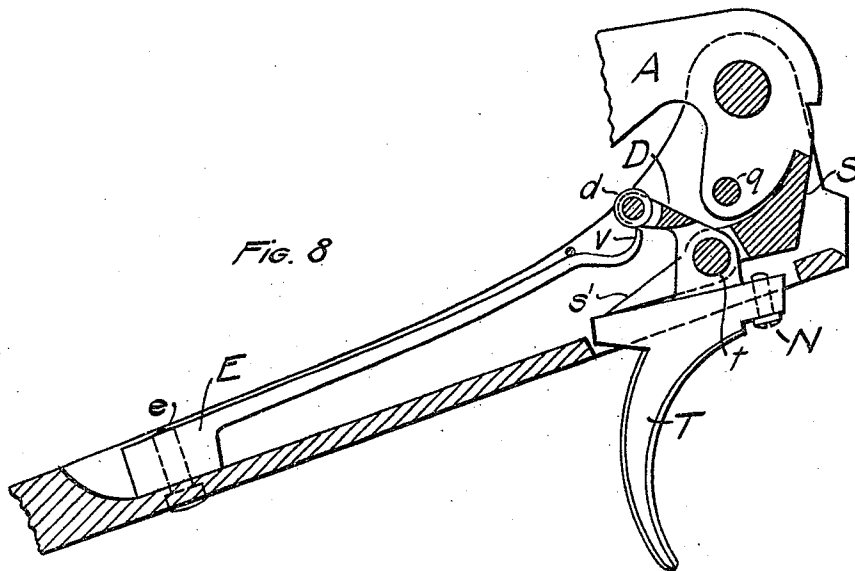
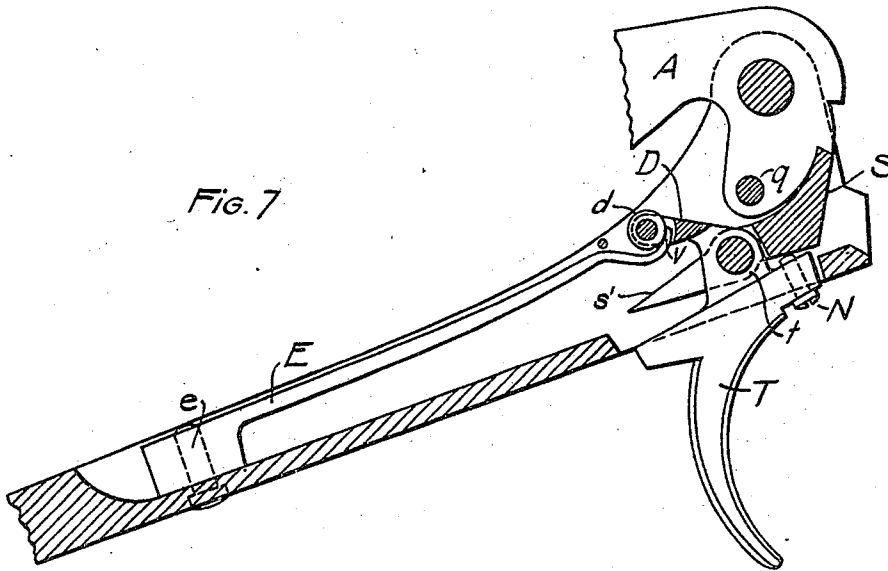
PATENTED MAR. 6, 1906.

D. BROWN.

RIFLE SET LOCK AND SAFETY SET TRIGGER.

APPLICATION FILED MAY 8, 1905.

2 SHEETS—SHEET 2.



WITNESSES

W. T. Vete
G. Louise Leete

INVENTOR

Daniel Brown
by *Howard A. Lamprey*
ATT'Y

UNITED STATES PATENT OFFICE.

DANIEL BROWN, OF CRANSTON, RHODE ISLAND.

RIFLE SET-LOCK AND SAFETY SET-TRIGGER.

No. 814,584.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed May 8, 1905. Serial No. 259,366.

To all whom it may concern:

Be it known that I, DANIEL BROWN, a citizen of the United States, residing at Cranston, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Rifle Set-Locks and Safety Set-Triggers, of which the following is a specification, reference being had therein to the accompanying drawings.

Like letters indicate like parts.

Figure 1 is a central longitudinal section of my improved rifle set-lock and safety set-trigger and the adjacent parts of the rifle with my improved safety set-trigger in operative position. Fig. 2 is the same as Fig. 1 with my improved safety set-trigger in its inoperative position. Fig. 3 is a perspective view of the lever of said lock. Fig. 4 is a perspective view of the trigger. Fig. 5 is a perspective view of the sear. Fig. 6 is a top plan view of the interior of said lock, showing the arrangement of the springs, lever, and sear, with the trigger in cross-section. Fig. 7 is an enlarged view of the trigger and its adjacent parts, showing the trigger in its "set" position. Fig. 8 is the same, showing the trigger out of its set position.

My invention relates to rifle or gun locks and to the set-triggers of the same; and it consists in the novel construction and combination of the several parts, as hereinafter described and specifically set forth in the claims.

In the drawings, A represents the hammer, which is pivotally mounted in the lock in the usual manner. The hammer A is actuated by the spring B, the rear end of which is secured to the tang by the screw C and the forward end of which engages with pin P of the stirrup Q. The stirrup Q is pivotally secured to the hammer A at *q*.

The trigger T is pivotally mounted on the pivot *t* in the usual way. The inner end of the trigger T has the part D projecting rearwardly at an angle therefrom and in which or upon which is mounted the antifriction-roller *d*. The spring E is secured to the tang by the screw *e* and has its inner end adapted to engage with the roller *d*. The sear S is pivotally mounted on the pivot *t* and is adapted to engage with the hammer A in the well-known manner. The sear S has its rear end bifurcated to form arms *s* and *s'*. The lever L is pivotally mounted at one end to the pivot *l*, which is secured in the lock or case of the rifle. The lever L has the lip or flange *f*

extending from one side thereof and the aperture *g* extending therethrough and the stud *h*, which extends downward through an aperture in the tang made for that purpose and which is adapted to engage with the trigger guard or handle F.

The forward end of the lever L is arranged to engage with the arm *s'* of the sear S. The screw H secures the springs I, J, and K and holds them firmly in their respective positions in the lock. The spring I has the projection *i* at the end thereof, which projection is adapted to enter the aperture *g* of the lever L. The spring J is adapted to engage with the arm *s* of the sear S, and the spring K is adapted to engage with the trigger T and has the lateral projection *k*, which engages with the lip *f* of the lever L.

The curved portion of the forward end of the spring E is an arc of a circle whose circumference is larger than that of the roller *d* and is slightly hooked at *v*. The spring E at *v* so engages with the roller *d* that when the point of engagement is very slightly above the line connecting the axes of the roller *d* and the trigger T the trigger is held somewhat rigidly in this position, and when in this position the trigger is set ready for firing and is displaced by a very slight pull. If the screw N be withdrawn a little farther than it is necessary to have it in order to hold the trigger in its set position, then the lower end of the trigger may be pressed a little farther forward, and then the point of engagement between the spring E and the roller *d* will be a little farther above said axial line, and the force of the spring E will hold the trigger forward more firmly and a harder pull will be required to fire off the rifle. Usually the screw N is so adjusted that when the lower end of the trigger T is pushed forward as far as it can be the trigger is then in its set position ready for firing.

When the parts are assembled as explained and the hammer cocked, the trigger T rests somewhat loosely on its pivot *t*, as it has not been set. By a forward pressure of the finger or thumb against the back side of the lower end of the trigger it is set ready for firing, as shown in Figs. 1 and 2. A slight pull on the trigger releases it from its balanced position and the force of the spring E then causes the roller *d* and its adjacent parts to have a forward oscillation and the heel O of the trigger T comes into sudden and vio-

lent contact with the arms *s* and *s'* of the sear *S*, and the forward end of the sear is thereby "knocked off" or out of engagement with the hammer *A* and the spring *B* allowed to act.

When the trigger is in its set position ready for firing, a slight jar is liable to fire the rifle off when not desired. My improved safety device provides against this and is a simple and effective means that renders a rifle safer to handle whether the trigger is set or not, and yet it is readily released from operation when not desired.

The forward end of the lever *L* is held firmly in engagement with the arm *s'* of the sear *S* by the spring *I*, whereby the accidental disengagement of the sear *S* from the hammer *A* is prevented. The spring *K* engages with the heel *O* of the trigger *T* and holds it against any sudden and violent movement of the trigger if it should be accidentally actuated by the spring *E*. When one is ready to fire, by a slight pressure upon the guard or handle *F* the lever *L* is raised by means of the stud *h*. The projections *i* and *k* of the springs *I* and *K*, respectively, engage with lever *L* or its lip *f*, and are thus lifted as the lever *L* is raised, so that the end of the lever is lifted away from the sear *S* and the spring *K* is lifted away from the trigger *T*, as shown in Fig. 2. As soon as the pressure is released from the guard or handle *F* the lever and springs return to their poerative position, as seen in Fig. 1.

I claim as a novel and useful invention and desire to secure by Letters Patent—

1. In a rifle-lock the combination of a pivotally-mounted trigger, an arm extending angularly from said trigger, a roller mounted on said arm, a spring engageable with said roller, a sear pivotally mounted, a spring engageable with said sear and a screw in said trigger adapted to engage with said sear, as and for the purposes set forth.

2. In a rifle-lock the combination of a pivotally-mounted trigger, an arm extending angularly from said trigger, a spring engageable with said arm, a sear pivotally mounted, a spring engageable with said sear, and a screw in said trigger adapted to engage with said sear, substantially as specified.

3. In a rifle-lock the combination of a pivotally-mounted trigger, an arm extending from said trigger, a spring engageable with said arm, means to reduce friction between said spring and said arm, a sear pivotally mounted, a spring engageable with said sear and means to regulate the forward swing of said trigger, substantially as described.

4. In a rifle-lock the combination of a pivotally-mounted trigger, an arm extending from said trigger, a spring engageable with said arm, means to reduce friction between said spring and said arm, a bifurcated pivotally-mounted sear, a spring engageable with

one of the arms of said sear, a lever engageable with the other arm of said sear, a spring having a lateral projection, which is engageable with said lever, and a screw in said trigger adapted to engage with said sear to limit the forward swing of said trigger, substantially as shown.

5. In a rifle-lock the combination of a pivotally-mounted trigger, an arm extending from said trigger, a roller mounted on said arm, a spring engageable with said roller, a bifurcated pivotally-mounted sear, a spring engageable with one of the arms of said sear, a lever engageable with the other arm of said sear, a spring having a lateral projection which is engageable with said lever, a spring engageable with the heel of said trigger, a lateral projection on said last-mentioned spring which is engageable with said lever, substantially as set forth.

6. In a rifle-lock, the combination of a pivotally-mounted trigger, an arm extending from said trigger, a spring engageable with said arm, means to reduce friction between said spring and said arm, a sear, a spring engageable with said sear, a lever engageable with said sear, means to disengage said lever and said sear, a spring engageable with said trigger, and means to disengage said trigger and said spring substantially as specified.

7. In a rifle-lock the combination of a trigger, a sear, a spring engageable with said sear, a lever adapted to be held in firm engagement with said sear, a spring engageable with said trigger and means to disengage both said lever and said sear and said trigger and said spring, substantially as and for the purposes set forth.

8. In a rifle-lock, the combination of a pivotally-mounted trigger, an arm extending from said trigger, a spring engageable with said arm, means to reduce friction between said spring and said arm, a sear, a spring engageable with said sear, a lever engageable with said sear, a spring engageable with said trigger, a movable trigger-guard and means of applying pressure upon said lever by operating said trigger-guard to disengage at the same time both said lever and sear and said trigger and said spring, substantially as set forth.

9. In a rifle-lock the combination of a pivotally-mounted trigger, an arm extending from said trigger, a spring engageable with said arm, means to reduce friction between said spring and said arm, a sear, a spring engageable with said sear, a lever engageable with said sear, a spring having a lateral projection which is engageable with said lever and means to disengage said lever and said sear, substantially as and for the purposes shown.

10. In a rifle-lock, the combination of a hammer, a pivotally-mounted trigger, an arm extending from said trigger, a spring en-

gageable with said arm, means to reduce
friction between said spring and said arm, a
sear, means to hold said sear firmly in engage-
ment with said hammer and a means to hold
5 said last-mentioned means out of engage-
ment with said sear, substantially as and for
the purposes set forth.

In testimony whereof I affix my signature
in presence of two witnesses.

DANIEL BROWN.

Witnesses:

ALFRED S. JOHNSON,
HOWARD A. LAMPREY.