D. W. TOMLINSON, JR.

TRIGGER MOVEMENT FOR SELF LOADING FIREARMS.

APPLICATION FILED OCT. 27, 1909.

944,832. Patented Dec. 28, 1909.

Fig. 1.

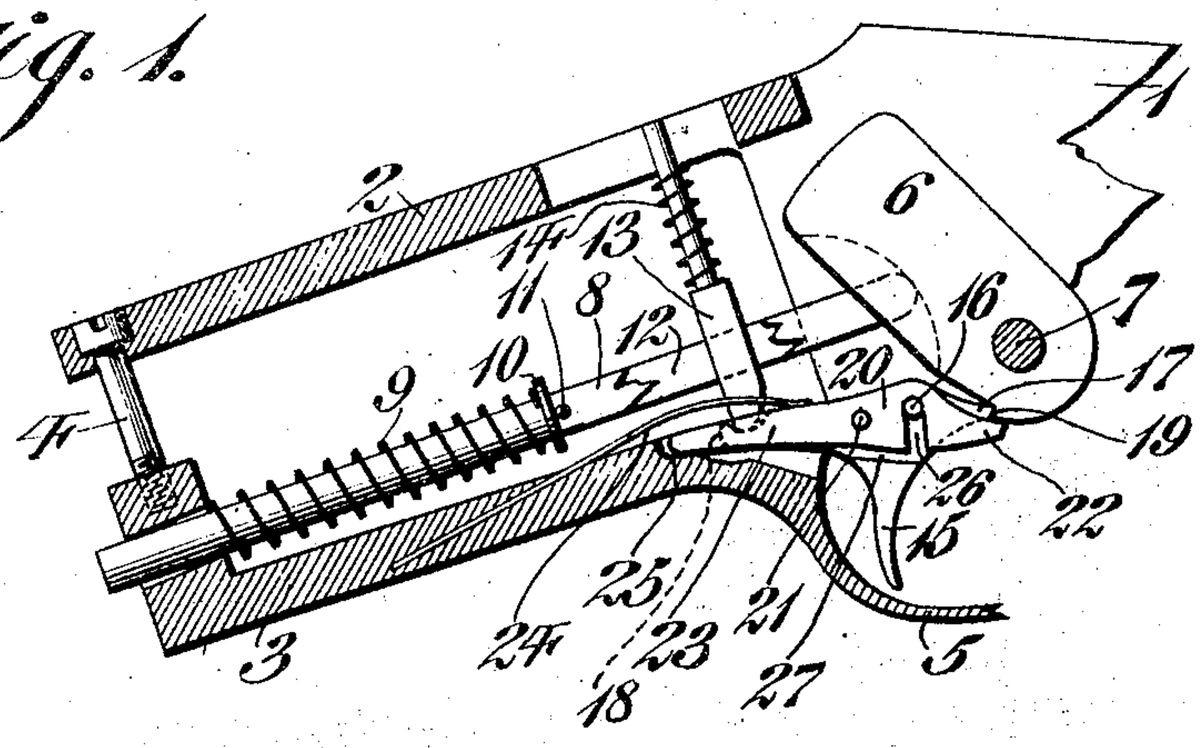


Fig. 4.

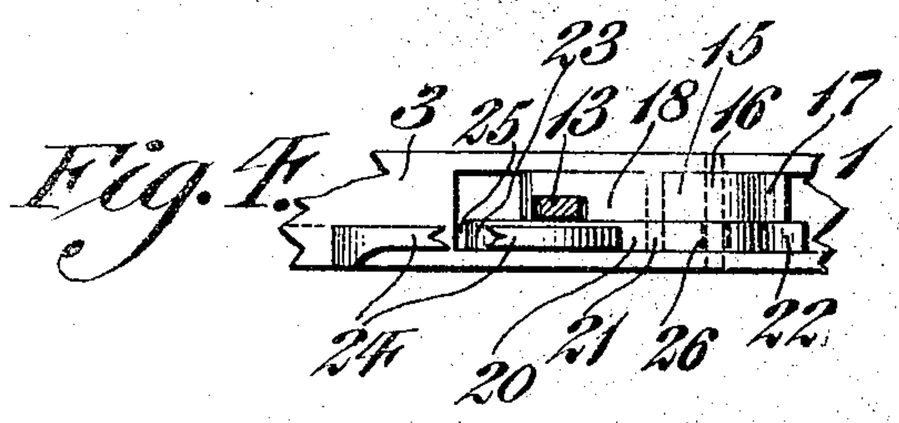


Fig. 2.

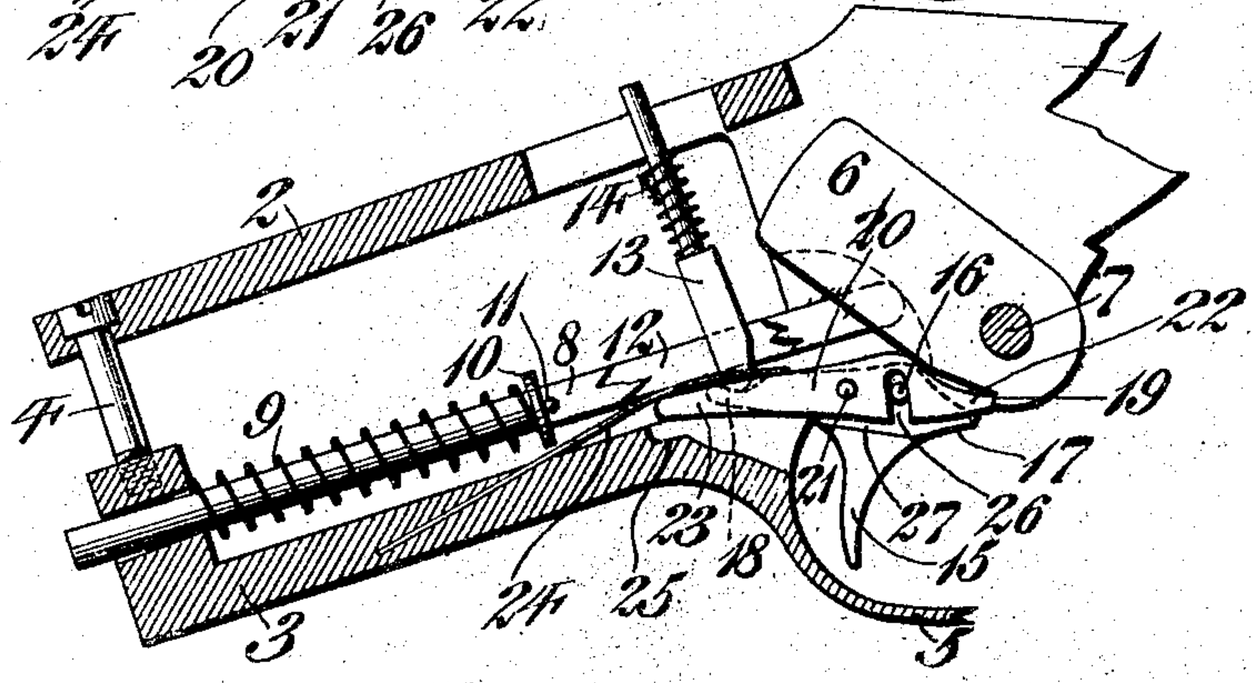
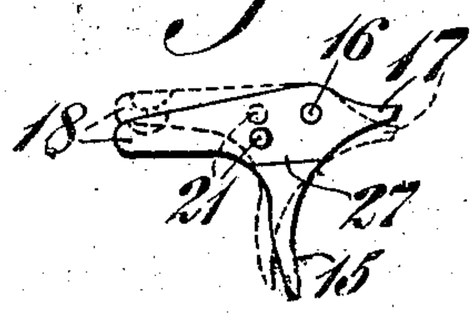


Fig. 3.



WITNESSES

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TRIGGER-MOVEMENT FOR SELF-LOADING FIREARMS.

944,832. Specification of Letters Patent. **Patented Dec. 28, 1909.**

Application filed October 27, 1909. Serial No. 524,792.

To all whom it may concern:

Be it known that I, DANIEL W. TOMLINSON, Jr., a citizen of the United States, residing at Batavia, county of Genesee, State of New York, have invented a new and useful Trigger-Movement for Self-Loading Firearms, of which the following is a specication.

My invention relates to a new and useful trigger movement for self loading fire arms wherein I simplify and strengthen the auxiliary sear which engages the hammer when the trigger is drawn back.

It further consists in providing a plurality of sears, one of which is automatically moved into operation when the trigger is drawn backward and is directly disengaged by the movement of the trigger forwardly.

It further consists in directly pivoting the auxiliary sear to the trigger, whereby said auxiliary sear is actuated by the movement of the trigger.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

Figure 1 represents a longitudinal section through a portion of a self loading gun frame with the hammer cocked and ready for firing. Fig. 2 represents a longitudinal section showing the parts in different positions with the auxiliary sear in engagement with the hammer notch. Fig. 3 represents a side elevation in detached position of the trigger showing the movement thereof in dotted lines. Fig. 4 represents a plan view of the trigger and auxiliary sear.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, for the purpose of illustrating my invention, I have shown in the accompanying drawing one form thereof which at present is preferred by me, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

1 designates a frame having upper and lower tangs 2 and 3, stock assembling screw 4 and trigger guard 5. Within this portion of the frame I have illustrated a hammer 6 pivoted at 7, a main spring rod 8, hammer spring 9, collar 10 and pin 11, comprising the hammer and operating mechanism, pressing forwardly at all times striking to force it against the firing pin, which is not shown. The rod 8 is preferably broken away in the figures to show a preferably longitudinal slot 12, through which passes the trigger spring post 13, around the upper portion of which is the coiled trigger spring 14 having suitable bearing points in order to cause the said trigger spring post to suitably bear against and actuate the trigger.

15 designates a trigger which is pivoted at 16, in any suitable manner, in the present instance on a pin which serves as a positive pivot and said trigger is provided with a sear 17 on one side of the pivotal point and with an arm 18 on the other side of its pivotal point, said trigger spring post 13 engaging with said arm 18, which is preferably provided with a recess for receiving the end of said post, it being understood that the said trigger spring post 13 tends to depress and hold in depressed position the arm 18 of the trigger in order that the sear 17 thereof engages with the notch 19 on the hammer 6 or is in proper position to engage therewith.

20 designates an auxiliary sear pivoted at a suitable point to the trigger 15, as at 21, said auxiliary sear having an engaging end 22 upon one side of its pivotal point and the lever arm 23 upon the opposite side of its pivotal point, which lever arm has bearing thereupon resilient means, such as a spring 24, in order to normally depress the said lever arm to elevate the engaging end 22, when the trigger is drawn backward, at which time the trigger sear 17 is disengaged from the notch 19 of the hammer 6.

As will be seen from Fig. 1, the normal position of the trigger 15, when ready for firing with the hammer cocked, has the sear 17 thereof in engagement with the notch 19 of the hammer 6, at which time the pivotal point 21 of the auxiliary sear 20 is situated so that the lever arm 23 of the said auxiliary sear 20 is resting upon the point 25 of the tang 3, the spring 24 holding the same in this position. As soon, however, as the trigger is pulled rearwardly for firing, the pivotal point 21 of the auxiliary sear 20 carried by the trigger 15, is elevated, carrying

the said auxiliary sear upwardly and removing the lever arm 23 from its point of contact 25 and causing the spring 24 to act to lower the lever arm 23 which elevates the engaging end 22 into suitable position to immediately engage with the notch 19 of the hammer 6, as it returns to its backward position due to the recoil, the parts then being in the position seen in Fig. 2. As soon as the trigger 15 is released and moves forwardly again, the pivotal point 21 is lowered and with it the auxiliary sear 20 so that the lever arm 23 thereof contacts with the point 25 of the tang 3 and as the downward movement of the pivotal point 21 continues the point 25 serves as a fulcrum for the lever arm 23 of the auxiliary sear 22 and moves the latter upon its pivotal point 21 thus depressing or lowering the engaging end 22 and removes the same from engagement with the notch 19 of the hammer, which is then caused to engage with the sear 17 of the trigger 15 which has meanwhile moved into position for this purpose. From this it will be seen that I have provided a trigger with a sear thereon for engagement with the notch of a hammer and I have directly mounted the auxiliary sear upon the trigger in such a manner that as the pivotal point is raised and lowered the auxiliary sear is properly actuated to cause the engaging end thereof to engage with the notch of the hammer when the same is thrown back by the recoil. In the present instance, I have provided a slot 26 in the auxiliary sear in which moves the pivotal pin 16 of the trigger, so that the auxiliary sear may be independently actuated and I have cut away a portion of the trigger 15 as at 27 in order to accommodate the auxiliary sear 20, this being done in order to give proper clearance for the parts.

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

1. In a device of the character described, a trigger having a sear and a fixed pivot, an auxiliary sear pivotally mounted upon said trigger, whereby the pivotal point of said auxiliary sear is raised and lowered by the action of the trigger and means for actuating said auxiliary sear to elevate the engaging end thereof, when the pivotal point is raised.

2. In a device of the character described, a trigger having a sear and a fixed pivot, an auxiliary sear pivotally mounted upon said trigger, whereby the pivotal point of said auxiliary sear is raised and lowered by the action of the trigger, means for actuating said auxiliary sear to elevate the engaging end thereof, when the pivotal point is raised, and means for stopping the downward movement of the auxiliary sear as the pivotal point is lowered and acting as a fulcrum to lower the engaging end to disengage the same from the notch of the hammer when the trigger sear is in proper position to engage with said notch.

3. In a device of the character described, a trigger having a sear and a fixed pivot, an auxiliary sear pivoted to said trigger in the rear of said fixed pivot and means bearing upon said auxiliary sear in the rear of its pivotal point in order to elevate the engaging end thereof, when the trigger is moved rearwardly.

4. In a device of the character described, a trigger having a sear and a fixed pivot, an auxiliary sear pivoted to said trigger in the rear of said fixed pivot, and resilient means bearing upon said auxiliary sear in the rear of its pivotal point in order to elevate the engaging end thereof, when the trigger is moved rearwardly.

5. In a device of the character described, a trigger having a sear and a fixed pivot, an auxiliary sear pivoted to said trigger in the rear of said fixed pivot, resilient means bearing upon said auxiliary sear in the rear of its pivotal point, in order to elevate the engaging end thereof when the trigger is moved rearwardly, and means for stopping the downward movement of the auxiliary sear, as the trigger moves forwardly, and acting as a fulcrum to lower the engaging end to disengage the same from the notch of the hammer, when the trigger sear is in proper position to engage with said notch.

6. In a device of the character described, a trigger having a sear and a fixed pivot, an auxiliary sear pivotally mounted on said trigger at a point on the opposite side of said pivot from the trigger sear, an engaging end on said auxiliary sear, a lever arm on said auxiliary sear on the opposite side of its pivotal point from said engaging end, and means bearing upon said lever arm for lowering the same and thus elevating the engaging end thereof when said trigger is moved rearwardly.

7. In a device of the character described, a trigger having a sear and a fixed pivot, trigger actuating means for said trigger, an auxiliary sear pivotally mounted on said trigger whereby said pivotal point is raised and lowered by the movement of said trigger, an engaging end on said auxiliary sear upon one side of its pivotal point and resilient means bearing upon said auxiliary sear upon the opposite side of the pivotal point for raising said engaging end when the pivotal point is raised.

8. In a device of the character described, a hammer having a notch, resilient means for operating the same, a pivoted trigger having a sear, an auxiliary sear pivotally mounted on said trigger upon the opposite side of the pivotal point thereof, an engaging end on said auxiliary sear, and

means for actuating said auxiliary sear for causing the engaging end thereof to be elevated when the trigger is moved rearwardly.

9. In a device of the character described, a hammer having a notch, a trigger having a sear and a fixed pivot, an auxiliary sear pivotally mounted upon said trigger whereby the pivotal point of said auxiliary sear is raised and lowered by the action of the trigger and means for actuating said auxiliary sear to cause the same to engage with and be disengaged from the hammer notch.

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Witnesses:
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