

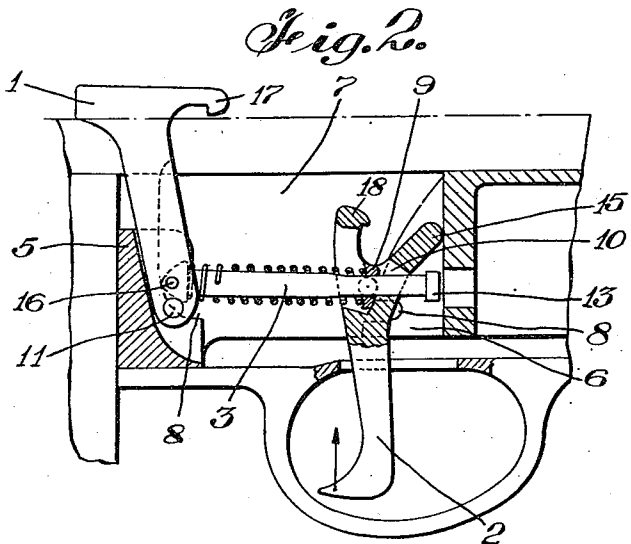
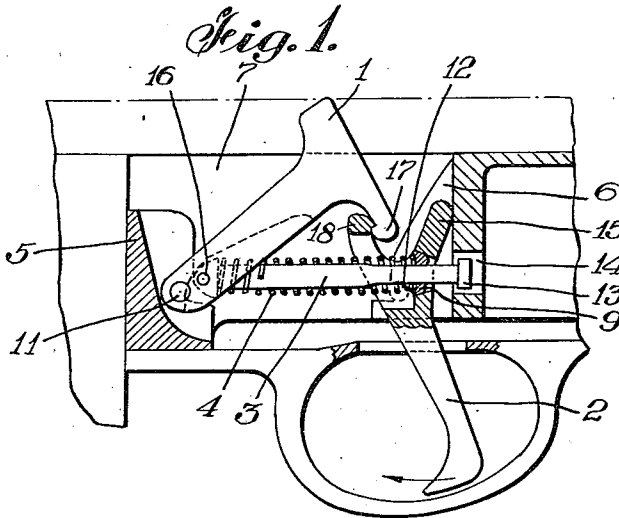
Sept. 7, 1948.

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2,448,810

REMOVABLE TRIGGER HOUSING GROUP FOR FIREARMS

Filed Jan. 20, 1948



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2,448,810

REMOVABLE TRIGGER HOUSING GROUP
FOR FIREARMS

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Application January 20, 1948, Serial No. 3,198
In Czechoslovakia January 23, 1947

7 Claims. (Cl. 42—69)

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This invention relates to a removable trigger housing group and more specifically to a trigger and hammer releasing mechanism for firearms.

The known mechanisms of this type are quite complicated in their structure and require special securing means which are intricate and impede the manipulations of the arm. In addition thereto they have the disadvantage of being permanently connected to their support or to some other parts of the arm thus necessitating the removal and dismounting of more parts than absolutely necessary for a mere removal and dismount of said mechanism per se.

The main object of the present invention is to avoid the said and other disadvantages and to create a trigger and releasing mechanism which is of reliable though simple construction, which may be easily removed from and reintroduced into the firearm and which may easily be dismounted and assembled. The mechanism according to our invention comprises basically a trigger and a hammer, each being provided with a cross pin or bolt around which they may swing in a longitudinal direction of the firearm, a U-shaped or notchlike bearing for each of said pins having their openings directed against each other and a compression spring arranged between and acting upon said trigger and hammer securing the same in their respective supports and acting as a hammer spring and a trigger spring as well.

The novel features which we consider characteristic of our invention are set forth with particularity in the appended claims. The invention itself, however, and additional objects and advantages thereof will best be understood from the following description of an embodiment thereof when read in connection with the accompanying drawing in which

Fig. 1 shows a side view, partly in section, of our new trigger housing group with hammer in cocked position, and

Fig. 2 is a side view, partly in section, of the same group with hammer in fired position.

The trigger and releasing mechanism comprises as principal elements the hammer 1 and the trigger 2 cooperating therewith each of which is provided with a cross pin or bolt 11 and 12 respectively permitting a swing movement of said elements in longitudinal direction of the firearm. The said hammer and trigger are properly mounted within the trigger housing 7 in supports 5 and 6 respectively, which supports are attached to the sidewalls of the trigger housing 7 or otherwise fixed therein. The cross pins or bolts 11 and 12 are resting in conforming notches or other

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U-shaped indentations 8 in said supports 5 and 6 the notch openings being directed against each other.

The hammer 1 and the trigger 2 are connected by a member such as the rod 3 whose frontal end is jointed to the hammer 1 by the bolt 16 whereas its other end having a head 13 penetrates freely the trigger 2 below its claw 18 and the opening 10 in the trigger arm 15. The back wall of the trigger housing 7 has an opening 14 opposite said rod 3 to permit its free displacement.

The head 13 of the rod 3 has advantageously an elliptic shape the longer axis of the same being vertical. The opening 10 in the trigger arm 15 is circular in its front part and changes to an elliptical form, conforming to that of the rod head 13, in its back part with the longer axis being horizontal. Thus the trigger 2 is prevented from sliding from the rod 3 after the mechanism is removed from the firearms and it may be disengaged therefrom only after the trigger 2 is turned by 90° from the position shown in the drawing.

The hammer 1 and the trigger 2 are held in their supports 5 and 6, and their pins 11 and 12 are secured in the notchlike bearings 8 by the action of a compression spring 4 arranged between said hammer and trigger. In the preferred embodiment shown in the drawing said spring 4 is mounted upon the connecting member or rod 3. One end of said spring against the washer 9 which freely surrounds the rod 3 and rests in the circular front part of the opening 10 (Fig. 1). Thus the spring 4 is acting as a hammer spring and as a trigger spring as well.

Fig. 1 shows the hammer 1 in cocked position being held therein by the engaging claws 17 and 18 of the hammer 1 and trigger 2 respectively. This engagement is released in usual manner by pressing the lower part of the trigger 2 backwards in opposite direction of the arrow shown whereupon the hammer 1 swings forward under the force of the spring 4 into the position shown in Fig. 2. Thereafter the trigger and releasing mechanism may easily be removed from the trigger housing 7 if required. This is achieved by tilting either the hammer 1 or the trigger 2 so as to disengage the respective cross pin 11 or 12 from its U-shaped bearing 8 in the support 5 or 6 respectively. In the shown embodiment the trigger 2 is provided with a projecting arm 15 which leans against the backwall of the trigger housing 7. When the lower part of the trigger 2 is forced forward in the direction of the arrow shown in Fig. 1 the trig-

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ger 2 swings into the position shown in Fig. 2, the trigger pin 12 disengages from the notchlike bearing 8 in the support 6 and the entire mechanism may be removed from the trigger housing 7 by pushing it upward in the direction of the arrow shown in Fig. 2.

To reintroduce the mechanism into the trigger housing the hammer pin 11 is first put into its notchlike bearing 8 in the support 5 and thereafter the trigger pin 12 into its notchlike bearing 8 in the support 6. To facilitate this introduction the lower wall of the notches 8 is longer than the upper wall thus forming a stop face for the pins 11 and 12, which slide downwards along the inner faces of the supports 5 and 6 until stopped by said lower notch walls and forced into their respective U-shaped bearings 8 by the action of the spring 4.

Although one form of the invention has been shown and described by way of illustration, it will be understood that it may be constructed in various other embodiments which come within the scope of the appended claims.

What we claim as our invention is:

1. A removable trigger and hammer releasing mechanism for firearms, comprising a hammer and a trigger cooperating therewith each being provided with a cross pin permitting a swing movement of said hammer and trigger, a U-shaped bearing for each of said pins, the opening of the two U-shaped bearings being directed against each other, and a compression spring arranged between and acting upon said hammer and trigger.
2. A removable trigger and hammer releasing mechanism for firearms, comprising a hammer and a trigger cooperating therewith each being provided with a cross pin permitting a swing movement of said hammer and trigger, supports for the same within the trigger housing, in each of the two supports a U-shaped bearing for the hammer pin and the trigger pin respectively, the openings of the two U-shaped pin bearings being directed against each other, and a compression spring arranged between and acting upon said hammer and trigger and securing them in their proper supports.
3. A removable trigger and hammer releasing mechanism for firearms comprising a hammer and a trigger cooperating therewith each being

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provided with a cross pin permitting a swing movement of said hammer and trigger, supports for the same within the trigger housing, in each of the two supports a U-shaped bearing for the hammer pin and the trigger pin respectively, the openings of the two U-shaped pin bearings being directed against each other, a connecting member between the hammer and the trigger being jointed to one of them and freely penetrating the other, and a compression spring arranged between and acting upon said hammer and trigger and securing them in their proper supports.

4. A removable trigger and hammer releasing mechanism for firearms according to claim 3 wherein the spring is supported by the connecting member.

5. A removable trigger and hammer releasing mechanism for firearms comprising a hammer and a trigger cooperating therewith each being provided with a cross pin permitting a swing movement of said hammer and trigger, supports for the same within the trigger housing, in each of the two supports a U-shaped bearing for the hammer pin and the trigger pin respectively, the openings of the two U-shaped bearings being directed against each other, a connecting rod between hammer and trigger being jointed to one of them and freely penetrating the other, and a compression spring supported by said connecting rod and arranged between and acting upon said hammer and trigger.

6. A removable trigger and hammer releasing mechanism for firearms, according to claim 1 wherein at least one of the cooperating hammer and trigger is provided with a projection leaning against a fixed part of the firearms after release of the hammer, said projection serving as a lever during the disengagement of the hammer and/or trigger pin from its U-shaped bearing.

7. A removable trigger and hammer releasing mechanism for firearms according to claim 5, wherein the freely penetrating end of the connecting rod is formed by an elliptically shaped head and the penetrated opening is of identical elliptic shape with its main axis turned by 90°.

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