



US 20110308129A1

(19) **United States**
(12) **Patent Application Publication**
Tasyagan

(10) **Pub. No.: US 2011/0308129 A1**
(43) **Pub. Date: Dec. 22, 2011**

(54) **TRIGGER**

(30) **Foreign Application Priority Data**

Mar. 11, 2009 (TR) 2009/01914

(76) Inventor: **Bahtiyar Tasyagan, Izmir (TR)**

Publication Classification

(21) Appl. No.: **13/203,547**

(51) **Int. Cl.**
F41A 17/46 (2006.01)

(22) PCT Filed: **Mar. 11, 2010**

(52) **U.S. Cl.** **42/70.06**

(86) PCT No.: **PCT/TR10/00042**

(57) **ABSTRACT**

§ 371 (c)(1),
(2), (4) Date: **Sep. 5, 2011**

This invention is related to a trigger (1) which prevents the rifle from being damaged and which improves the user safety by preventing unintentional firing (rifle's falling down to the ground, hitting any place, etc.) as long as the trigger lever (5) is not pulled by the user. The safety comprises a lock (8) acting against a security spring (9).

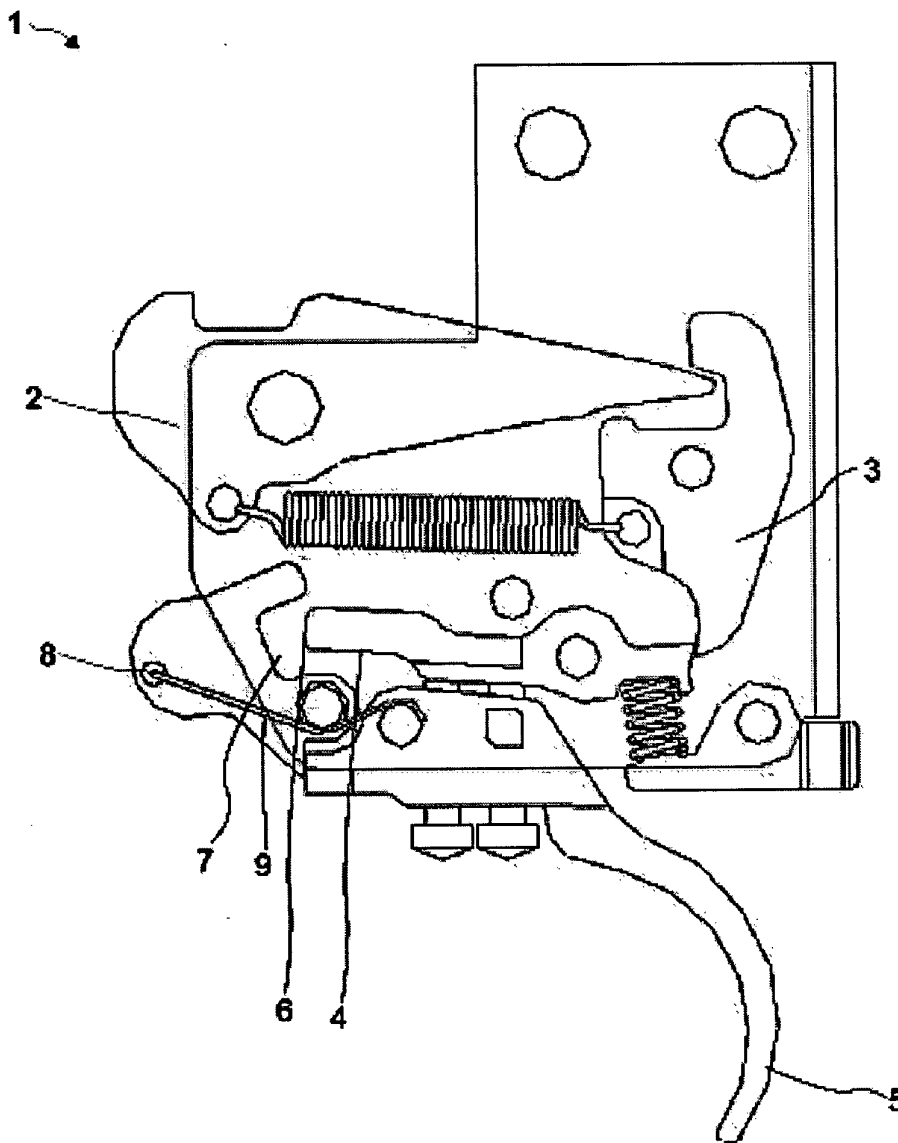


FIGURE 1

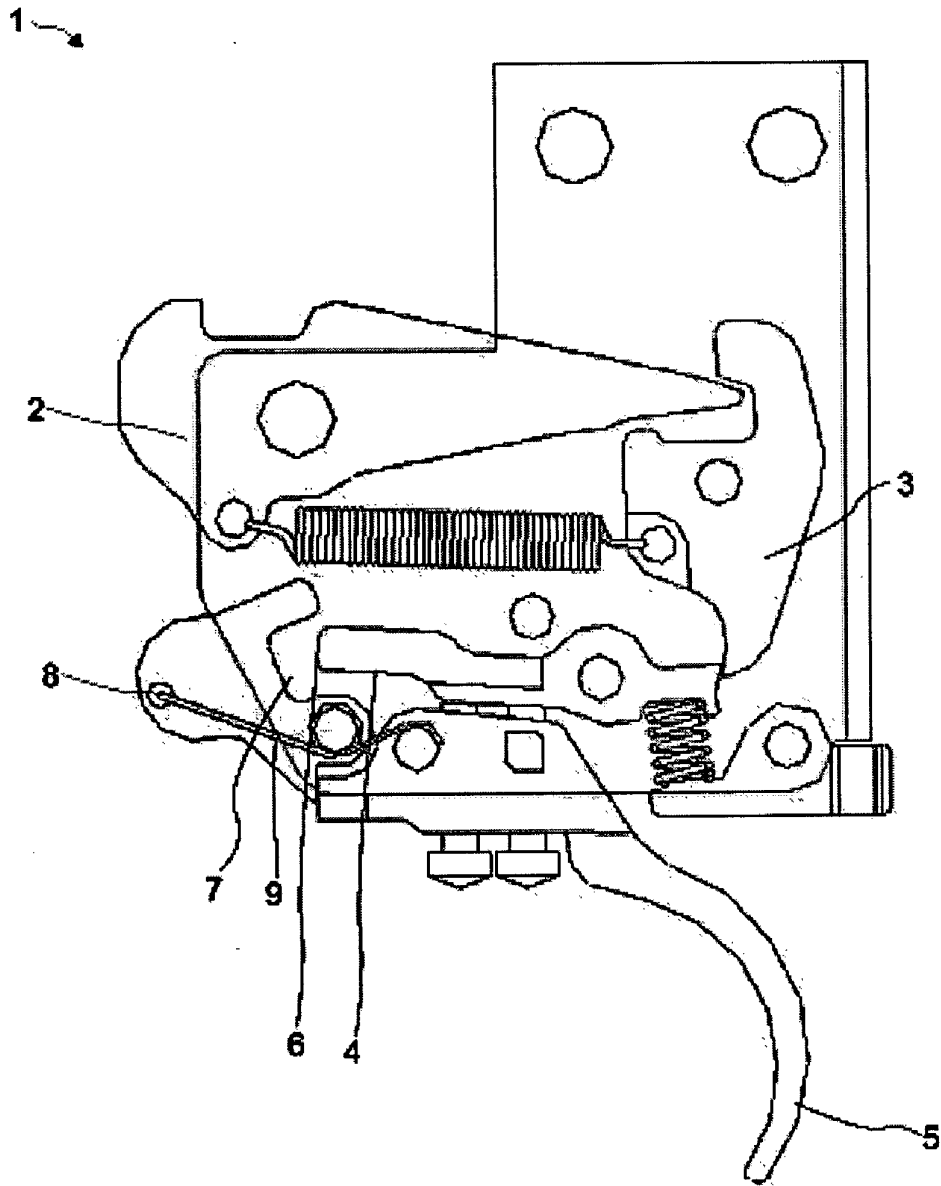


FIGURE 2

1 ↘

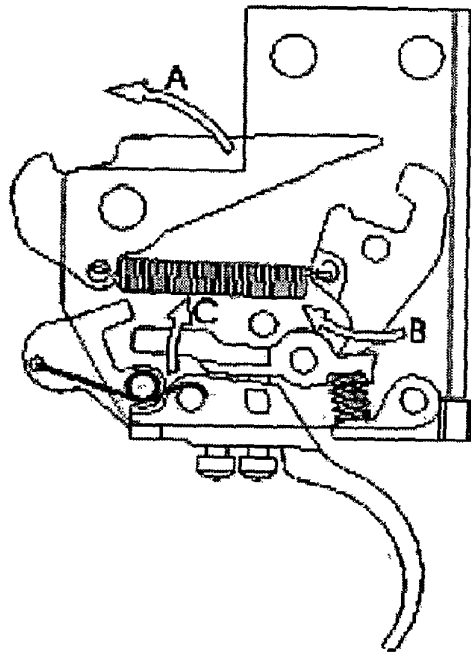


FIGURE 3

1 ↘

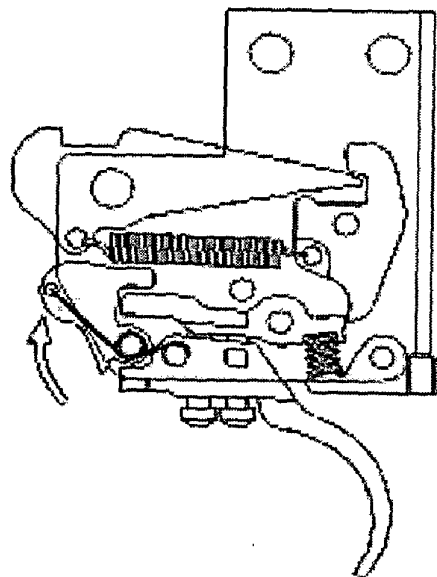


FIGURE 4

8

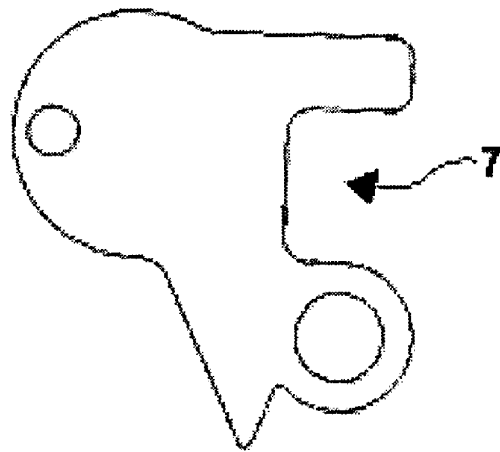
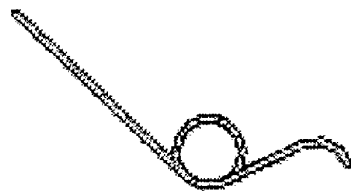


FIGURE 5

9



TRIGGER

TECHNICAL FIELD

[0001] This invention is related to a trigger which prevents the rifle from being damaged and which improves the user safety more by means of preventing usage without the user demand (rifle's falling down to the ground, hitting any place, etc.) as long as the trigger is not pulled by the user and which has lock and security spring.

BACKGROUND ART

[0002] User safety has a great importance in the air aiming rifles as in all of the guns those are currently present. After the rifle mechanism is set up, the rifle should not burst as a result of the falling of the rifle meaning the rifle's falling down, hitting any place, or as a result of a concussion. Otherwise, the user security cannot be provided and the rifle is damaged. Various developments have been made for meeting the need against these types of reasons in the known art. These developments are included below.

[0003] In the United States Patent Document no US 2008 078 284

[0004] In the Turkish Patent Document no TR 2006 044 54

[0005] In the International Patent Document no PCT/TR2008/000141

from the implementations known in the art, the bursting of the rifle without demand is inhibited by means of using the logic of penetrating the extractors in the trigger mechanism to the casings before the firing is made. However, the extractors and the casings in the processes in question cannot provide user security anymore since their number remain inadequate and they are not in a close position to the trigger. Also a lock which locks the trigger is not present in the documents in question.

[0006] As mentioned above, the air aiming rifles having the trigger which improves the user security totally are not mentioned in the implementations known in the art.

BRIEF DESCRIPTION OF THE INVENTION

[0007] The object of this invention is to achieve a trigger which provides more user security by means of preventing the rifle from doing firing without user demand via the lock and the spring in itself.

[0008] Another object of the invention is to achieve a trigger which does not allow the rifle to be damaged by means of preventing the rifle from doing firing without user demand via the lock and the spring in itself.

DETAILED DESCRIPTION OF THE INVENTION

[0009] The trigger made for achieving the objects of this invention is shown in the attached figures.

[0010] From these figures,

[0011] FIG. 1 is view of the position after the trigger is set up before firing.

[0012] FIG. 2 is view showing the positions of the trigger after the firing is made.

[0013] FIG. 3 is view of the position of the trigger occurring as a result of the gun's being fallen or hit.

[0014] FIG. 4 is view of the lock of the trigger.

[0015] FIG. 5 is view of the lock spring of the trigger.

[0016] The parts composing the air aiming rifle having trigger lock that is the subject of the invention are numbered as follows:

[0017] 1. Trigger group

[0018] 2. First extractor

[0019] 3. Second extractor

[0020] 4. Third extractor

[0021] 5. Trigger

[0022] 6. Bulge

[0023] 7. Casing

[0024] 8. Lock

[0025] 9. Spring

[0026] The trigger group (1) that is the subject of the invention comprises,

[0027] The first extractor (2) which enables the rifle to be fired by means of moving lastly by the propulsion coming from the trigger during firing,

[0028] The second extractor (3) where the first extractor (2) is penetrated at the casing, which is connected to the first extractor (2) by means of a spring and which enables the first extractor (2) to rotate in the A direction by means of giving propulsion,

[0029] The third extractor (4) which enables the second extractor (3) to rotate in the B direction by means of giving propulsion to the second extractor (3),

[0030] The lock (8) which is penetrated at the casing (7) of the bulge (6) of the third extractor which prevents the rifle from firing before the trigger (5) is pressed without user demand when the gun falls to the ground or hits any place and the security spring (9) which is connected to the lock (8) which overcomes the energy of the second extractor (3) by means of setting pressure and to the clamp (5).

[0031] The trigger that is the subject of the invention locks by preventing the third extractor (4) from rotating in the (C) direction by overcoming the trigger lock spring (9) with the energy that the trigger lock (8) gains when the rifle is fallen down. Since the third extractor (4) cannot rotate, the other extractors connected to it cannot rotate in the directions (A) and (B). Therefore, the bursting of the gun without demand is eliminated even if the falling hardness of the trigger is arranged in the most sensitive way.

[0032] Around this basic concept, the trigger group (1) that is the subject of the invention is open to various implementations to be developed, wherein the invention cannot limited to the examples explained herein, it is essentially in the way it is mentioned in the claims.

1. A trigger (1) comprising the first extractor (2) which provides the firing by means of transmitting the propulsion coming from the trigger during firing at the end, the second extractor (3) where the first extractor (2) is penetrated at the casing, which is connected to the first extractor (2) by means of a spring and which enables the first extractor (2) to rotate in the A direction by means of giving propulsion, and the third extractor (4), which enables the second extractor (3) to rotate in the B direction by means of giving propulsion to the second extractor (3); characterized by the lock (8) which is penetrated at the casing (7) of the bulge (6) of the third extractor which prevents the rifle from firing before the trigger (5) is pressed without user demand when the gun falls to the ground or hits any place and the security spring (9) which is connected to the lock (8) and the clamp (5).

* * * * *