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(54) **FOLDABLE COCKING MECHANISM, BOW WEAPON AND METHODS**

(57) The present invention provides a foldable cocking mechanism for a bow weapon, comprising: a trigger section, which comprises a trigger element, and a release section, which comprises a rocker configured to be actuated by the trigger element in a firing state of the mechanism; wherein the trigger section and the release section are foldable with respect to an axis in order to change the state of the mechanism between the firing state and a folded state, and wherein the trigger element is configured to engage with the rocker in the firing state and be separated from the rocker in the folded state. Furthermore, the invention provides a bow weapon, a method of cocking a bow weapon and a method for assembling a foldable cocking mechanism.

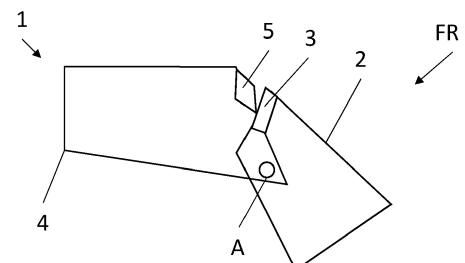


Fig. 1A

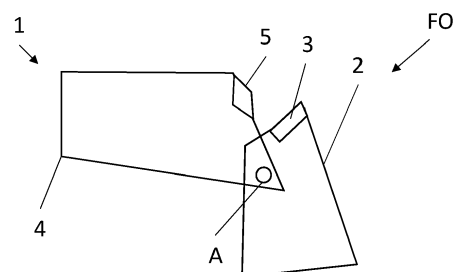


Fig. 1B

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## Description

### FIELD OF THE INVENTION

**[0001]** The present invention relates to a foldable cocking mechanism. The present invention further relates to a bow weapon, a method of cocking a bow weapon and a method of assembling a foldable cocking mechanism.

### BACKGROUND OF THE INVENTION

**[0002]** Cocking a weapon is a basic function that results in the weapon being brought into state in which the weapon is ready to fire. Weapons typically comprise some sort of cocking or charging device, wherein a force is exerted on the device through movement of at least one component in order to be able to fire a projectile or the like from the weapon. The specific configuration of such devices varies from weapon to weapon and often involves a user exerting physical force on the device in order to move the individual components in order to bring the weapon into the ready to fire state.

**[0003]** The application of force by the user often involves handling the weapon in a manner that is different from the usual firing manner. As such, the user has to undergo at least one instance of re-grasping and/or repositioning of the users hands in order to interact with the cocking or charging device in order to perform the entire cocking action in order to bring the weapon into the ready to fire state. In particular, with certain types of bow weapons users frequently have to perform the cocking action utilizing the force of their entire body. This can involve placing the weapon on the ground and using specialist equipment and/or feet/legs in order to exert the force required to safely cock the weapon.

**[0004]** The condition that has been detailed above is in need of improvement.

### SUMMARY OF THE INVENTION

**[0005]** Accordingly, the present invention has been made keeping in mind the above problems, and it is an objective of the present invention is to provide a new and improved foldable cocking mechanism, bow weapon, method of cocking a bow weapon and method of assembling a foldable cocking mechanism.

**[0006]** According to the invention, this objective is solved by a foldable cocking mechanism having the features of claim 1, a bow weapon having the features of claim 10, a method of cocking a bow weapon having the features of claim 12 and/or a method of assembling a foldable cocking mechanism having the features of claim 13.

**[0007]** Accordingly, the present invention provides:

- Foldable cocking mechanism for a bow weapon, comprising: a trigger section, which comprises a trigger element, and a release section, which com-

prises a rocker configured to be actuated by the trigger element in a firing state of the mechanism; wherein the trigger section and the release section are foldable with respect to an axis in order to change the state of the mechanism between the firing state and a folded state, and wherein the trigger element is configured to engage with the rocker in the firing state and be separated from the rocker in the folded state.

- Bow weapon, comprising a foldable cocking mechanism according to the invention.
- Method of cocking a bow weapon, in particular a bow weapon according to the invention, comprising the steps of: Moving a foldable cocking mechanism from a firing state to a folded state by folding a trigger section comprising a trigger element and a release section comprising a rocker with respect to an axis; Moving the foldable cocking mechanism from the folded state to the firing state by folding the trigger section and the release section with respect to the axis, wherein a trigger element and rocker element are engaged.
- Method for assembling a foldable cocking mechanism, in particular a foldable cocking mechanism according to the invention, comprising the steps of: Providing a trigger section, which comprises a trigger element; Providing a release section, which comprises a rocker configured to be actuated by the trigger element in a firing state of the mechanism; Arranging the trigger section and the release section in a foldable manner with respect to an axis, such that the rocker is actuatable by the trigger element in the firing state and the trigger element is separated from the rocker in the folded state.

**[0008]** The underlying discovery on which the present invention is based is therefore to construct a mechanism that provides a cocking motion without the necessity of extra handles and/or grips.

**[0009]** The idea on which the present invention is based is therefore to separate the mechanism into two distinct sections that can be moved with respect to each other in order to perform the cocking motion.

**[0010]** Advantageously, the state of the mechanism can be changed between the firing state and a folded state by folding the trigger section and release section with respect to an axis. In this way, a simple and easy to use mechanism is provided that allows a user to change the state of the mechanism. In particular, a user can grip the trigger and release section with one hand each and through application of force manipulate the mechanism in order to change its state without having to re-grasp and/or reposition the hands.

**[0011]** The trigger section comprises a trigger element. Additionally, the trigger element can be configured to be

actuatable by a user. In particular, the trigger element can be actuated by a user's finger. Furthermore, the trigger section can comprise a grip, wherein the grip can be configured to provide a platform and/or interface for a user to hold the trigger section and/or foldable cocking mechanism. Additionally, the trigger section can be configured to be coupled to a grip. Moreover, the trigger section can comprise a stock, wherein the stock is configured to provide structural support and/or provide a means for the user to brace against in the case of recoil or to assist with aiming. Furthermore, the trigger element can be pivotably coupled to the trigger section. Additionally, the trigger section can essentially cover and as such protect the trigger element. In this way, moisture ingress and/or dirt ingress can be effectively avoided in order to ensure functional reliability of the mechanism.

**[0012]** The release section can be configured to be couplable to the trigger section in a form fitting manner in the firing state of the mechanism. In this way, the foldable cocking mechanism ensures a stable connection between the trigger section and release section in the firing state of the mechanism. Additionally, the release section can be configured to essentially cover the rocker. In this way, moisture ingress and/or dirt ingress can be effectively avoided in order to ensure functional reliability of the mechanism. Furthermore, the rocker can be pivotably coupled to the release section. Moreover, the release section can comprise a grip, wherein the grip can be configured to provide a platform and/or interface for a user to hold the release section. Furthermore, the grip can be configured to provide the user with a handle to operate the release section and/or the foldable cocking mechanism.

**[0013]** Furthermore, the firing state can be defined as a close and/or immediate proximity of trigger element and the rocker. In particular, the trigger element and rocker can be abutting each other in the firing state of the foldable cocking mechanism. Advantageously, the rocker can be actuated by the trigger element in the firing state of the foldable cocking mechanism. In particular, the firing state of the foldable cocking mechanism can be defined as the state in which a projectile can be fired.

**[0014]** Moreover, the rocker can be configured to pivot between two distinct positions, wherein in the first position the trigger element and rocker are abutting without any force being exerted on the rocker by the trigger element, and in the second position the trigger element and rocker are abutting with force being exerted on the rocker by the trigger element.

**[0015]** Additionally, the folded state can be defined as a separation of trigger element and the rocker. Furthermore, the close proximity and/or spatial separation of the trigger element and the rocker can be influenced by the folding of the trigger section and release section with respect to the axis. In particular, the folded state of the foldable cocking mechanism can be defined as the state in which a projectile cannot be fired.

**[0016]** Moreover, the axis can be configured as an axle,

wherein the trigger section and release section are foldable with respect to the axle. Furthermore, the trigger section and release section can be configured to be mounted on the axle. The trigger section and release section can each comprise an aperture in which the axle is arranged. In particular, the axle can be configured as a rotationally symmetric bolt. Furthermore, the trigger section and release section can comprise bearings in order to reduce friction of the folding motion of the foldable cocking mechanism.

**[0017]** Furthermore, a bow weapon comprising such a foldable cocking mechanism allows a user to change the state of the mechanism from the firing state to the folded state and vice versa without removing the bow weapon from the line of fire. In particular, the state of the mechanism can be changed from the firing state to the folded state and vice versa without re-grasping and/or repositioning of the users hands. In this way, tedious and complex mechanisms that require re-grasping and/or repositioning of the users hands and/or using specialist equipment can be avoided. Additionally, the foldable cocking mechanism can be arranged integral with the remainder of the components of the bow weapon. In this way, a flexible and seamless integration of the foldable weapon mechanism into the bow weapon is provided.

**[0018]** Advantageously, the step of moving the foldable cocking mechanism from a firing state to a folded state and the step of moving the foldable cocking mechanism from a folded state to a firing state can be carried out entirely using the user's strength, in particular without any additional equipment for an external advantage or leverage. Furthermore, the steps of the moving the folded cocking mechanism can be carried out in succession, wherein the user hands remain engaged with the release section and trigger section, in particular the hands of the user do not have to be repositioned and/or the user is not required to re-grasp the foldable cocking mechanism.

**[0019]** Advantageous designs and further embodiments result from the further dependent claims as well as from the description with reference to the figures of the drawing.

**[0020]** In an embodiment, a cocking arm is coupled to the trigger section and configured to tension a force-storage element by the movement of the mechanism from the firing state to the folded state. In this way, the movement of the foldable cocking mechanism performs the function of tensioning the force-storage element and through the movement of the foldable cocking mechanism from the firing state to the folded state. Furthermore, the cocking arm can be configured to tension a force-storage element by moving the force-storage element, in particular at least a section of the force-storage element towards the release section. Additionally, the cocking arm can be configured to tension a force-storage element by moving the force-storage element towards the rocker. Moreover, the coupling of the cocking arm to the trigger section can be configured as a pivotal coupling in order to allow for movement of the cocking arm during the folding

movement of the foldable cocking mechanism and/or the folding movement of the trigger section and release section with respect to the axis. Furthermore, the force-storage element can be configured to store potential energy. In particular, the force-storage element can be configured as an elastic spring that can store energy in an extended or compressed state. Additionally, the cocking arm can be comprised within the foldable cocking mechanism.

**[0021]** According to an embodiment, the force-storage element comprises a bowstring, which is configured to be tensioned by the cocking arm. In this way, an efficient and cost effective configuration of the force-storage element is provided. Furthermore, the bowstring can be manufactured of a dacron, kevlar, vectran, spectra and/or dyneema material. Furthermore, the bowstring can be manufactured of a composite material suitable for use with a bow weapon.

**[0022]** In an embodiment, the trigger section and the release section are foldable in a common plane. In particular, the common plane can be defined as a plane essentially perpendicular to the longitudinal expansion of the axis. In this way, a geometrically optimized mechanism is provided, wherein the folding of the trigger section and release section is also ergonomically simplified for the user. Additionally, the common plane can be defined as a plane essentially parallel to the vertical plane of the foldable cocking mechanism when the mechanism is held during use in order to fire a projectile.

**[0023]** According to an embodiment, the rocker comprises a first end and a second end, wherein the first end comprises a roller configured to be actuateable by the trigger element, and wherein the second end is configured to hold and/or release the force-storage element. In this way, an optimized component is provided that is configured to kinematically couple the force-storage element and the trigger element in the firing state of the foldable cocking mechanism. In particular, the second end can be claw-, bow-, clamp- and/or bracket-shaped in order to optimally hold and/or release the force-storage element. Furthermore, the rocker can be configured to release the force-storage element by means of the second end when the first end of the rocker is actuated by means of trigger element. Additionally, the roller can be configured to translate the displacement of the trigger element into a pivoting motion of the rocker in the firing state of the foldable cocking mechanism.

**[0024]** In an embodiment, the cocking arm comprises a tensioning end configured to engage with the force-storage element. In this way, the cocking arm provides a safe and secure function while the foldable cocking mechanism is moved from the firing state to the folded state. Furthermore, the tensioning end can be claw-, bow-, clamp- and/or bracket-shaped in order to optimally engage the force-storage element. Additionally, the tensioning end can be arranged on a distal end of the cocking arm, in particular essentially opposed to the coupling of the cocking arm to the trigger section.

**[0025]** According to an embodiment, the rocker and trigger element are spring-loaded. In this way, the rocker and trigger element are always positioned in the optimal position in order to avoid jamming or obstruction of moving parts within the foldable cocking mechanism. In particular, the rocker can be spring-loaded against the release section and/or the trigger element can be spring-loaded against the trigger section. The spring-loading of the individual components can be realized by the means of a coil and/or leaf spring.

**[0026]** In an embodiment, the mechanism comprises a safety configured to obstruct movement of the mechanism between the firing state and a folded state. In this way, a safety feature is provided that prevents unwanted movement of the foldable cocking mechanism between the firing state and the folding state. In particular, the safety can be configured as a pin, latch or similar mechanical component, which a user can engage or disengage while handling the foldable cocking mechanism. Furthermore, the safety can be configured to be engaged and disengaged without removing the foldable cocking mechanism from the line of fire.

**[0027]** According to an embodiment, the safety is configured as a lever pivotably coupled to the trigger section, wherein the lever is configured to obstruct separation of the trigger section and release section. In this way, the safety provides increased reliability and safety, wherein the user does not have to worry that the trigger section and release section while handling the foldable cocking mechanism. Furthermore, the safety can be configured to be pivotable between a state in which the safety obstruct the separation of the trigger and release section and a state in which the safety does not obstruct the separation of the trigger and release section.

**[0028]** In an embodiment of the bow weapon, the bow weapon further comprises a magazine configured to load a projectile, in particular an arrow, into the release section when the mechanism is moved from the firing state to the folded state. In this way, the bow weapon provides the user with a projectile that is ready to be fired, as the movement of the foldable cocking mechanism from the firing state to the folded state has tensioned a force-storage element. Furthermore, the magazine can be configured to be arranged abutting and/or integral with the release section of the foldable cocking mechanism. In this way, the bow weapon provides a compact platform for shooting projectiles, wherein the bow weapon can be used in close quarters and has a relatively low weight.

**[0029]** According to an embodiment of the method of assembling a foldable cocking mechanism, the method further comprises the steps of: providing a cocking arm configured to tension a force-storage element by the movement of the mechanism from the firing state to the folded state; and coupling the cocking arm to the trigger section. In this way, the movement of the foldable cocking mechanism performs the function of tensioning the force-storage element through the movement of the

foldable cocking mechanism from the firing state to the folded state.

**[0030]** In an embodiment of the method of assembling a foldable cocking mechanism, the step of arranging comprises arranging the trigger section and release section in such a way that they are foldable in a common plane. In this way, a geometrically optimized foldable cocking mechanism is provided, wherein the assembly of the trigger section and release section is simplified.

**[0031]** The above embodiments can be combined with each other as desired, if useful. Further possible embodiments, further configurations and implementations of the invention also include combinations, not explicitly mentioned, of features of the invention described herein with respect to the embodiments. In particular, the skilled person will thereby also add individual aspects as improvements or additions to the respective basic form of the present invention.

#### BRIEF DESCRIPTION OF THE DRAWINGS

**[0032]** For a more comprehensive understanding of the invention and the advantages thereof, exemplary embodiments of the invention are explained in more detail in the following description with reference to the accompanying drawing figures, in which like reference characters designate like parts and in which:

- Figs. 1A, 1B show a schematic representation of a foldable cocking mechanism in the firing state and in the folded state;
- Fig. 2 shows a foldable cocking mechanism in the firing state according to an embodiment;
- Fig. 3 shows a bow weapon with a foldable cocking mechanism in the firing state according to an embodiment;
- Fig. 4 shows a bow weapon with a foldable cocking mechanism in the folded state;
- Fig. 5 shows a flow chart of a method of cocking a bow weapon; and
- Fig. 6 shows a flow chart of a method of assembling a foldable cocking mechanism.

**[0033]** The accompanying drawings are included to provide a further understanding of the present invention and are incorporated in and constitute a part of this specification. The drawings illustrate particular embodiments of the invention and together with the description serve to explain the principles of the invention. Other embodiments of the invention and many of the resulting advantages of the invention will be readily appreciated as

they become better understood with reference to the following detailed description.

**[0034]** It will be appreciated that common and/or well understood elements that may be useful or necessary in a commercially feasible embodiment are not necessarily depicted in order to facilitate a more abstracted view of the embodiments. The elements of the drawings are not necessarily illustrated to scale relative to each other. It will further be appreciated that certain actions and/or steps in an embodiment of a method may be described or depicted in a particular order of occurrences while those skilled in the art will understand that such specificity with respect to sequence is not actually required. It will also be understood that the terms and expressions used in the present specification have the ordinary meaning as is accorded to such terms and expressions with respect to their corresponding respective areas of inquiry and study, except where specific meanings have otherwise been set forth herein.

#### DETAILED DESCRIPTION OF EMBODIMENTS

**[0035]** Fig. 1A shows a schematic representation of a foldable cocking mechanism 1 in the firing state FR and Fig. 1B shows a schematic representation of a foldable cocking mechanism 1 in the folded state FO. The shown schematic representations depict a strongly simplified version of the foldable cocking mechanism 1.

**[0036]** Figs. 1A and 1B show a foldable cocking mechanism 1 for a bow weapon, comprising: a trigger section 2, which comprises a trigger element 3, and a release section 4, which comprises a rocker 5 configured to be actuated by the trigger element 3 in a firing state FR of the mechanism 1. The trigger section 2 and the release section 4 are foldable with respect to an axis A in order to change the state of the mechanism 1 between the firing state FR (see Fig. 1A) and a folded state FO (see Fig. 1B). The trigger element 3 is configured to engage with the rocker 5 in the firing state FR and be separated from the rocker 5 in the folded state FO. The degree of separation between the trigger section 2 and release section 4 shown in Fig. 1B is merely exemplary and to be understood as non-limiting.

**[0037]** Fig. 2 shows a sectional view of a foldable cocking mechanism 1 in the firing state FR according to an embodiment.

**[0038]** The kinematic relationship between the individual components as described with respect to Figs. 1A and 1B apply to the foldable cocking mechanism 1 shown in Fig. 2. In order to avoid repetition the kinematic relationship is therefore not repeated.

**[0039]** The shown rocker 5 comprises a first end 5a and a second end 5b. The first end 5a comprises a roller 8 that is configured to be actuateable by the trigger element 3. As the foldable cocking mechanism 1 is in the firing state FR, the roller 8 and trigger element 3 are abutting. Furthermore, the second end 5b is configured to hold and/or release the force-storage element 7. As Fig. 2

shows a sectional view of the foldable cocking mechanism 1, the force-storage element 7 is depicted as a circle, wherein the force-storage element 7 extends into and from the page. Furthermore, the rocker 5 and trigger element 3 are spring-loaded with springs 13.

**[0040]** Additionally, the shown foldable cocking mechanism 1 comprises a safety 9 configured to obstruct movement of the mechanism 1 between the firing state FR and a folded state FO. In the shown embodiment, the safety 9 engages a pin 14 arranged within the release section 4 in order to obstruct movement of the mechanism 1 between the firing state FR and a folded state FO. Furthermore, in the embodiment of Fig. 2, the safety 9 is additionally configured as a lever 11, which is pivotably coupled to the trigger section 2. The lever 11 is configured to obstruct separation of the trigger section 2 and release section 4. In order to ensure that the lever 11 is arranged in the correct position, the lever 11 is spring-loaded with a spring 13 against the trigger section 2.

**[0041]** Fig. 3 shows a bow weapon 10 with a foldable cocking mechanism 1 in the firing state FR according to an embodiment.

**[0042]** The shown bow weapon 10 comprises a foldable cocking mechanism 1 according to the invention. Furthermore, the bow weapon comprises a magazine 12 configured to load a projectile, in particular an arrow, into the release section 5 when the foldable cocking mechanism 1 is moved from the firing state FR to the folded state FO. The shown foldable cocking mechanism 1 is in the firing state FR.

**[0043]** Moreover, the shown cocking arm 6 is coupled to the trigger section 2 and configured to tension a force-storage element 7 by the movement of the mechanism 1 from the firing state FR to the folded state FO. The shown force-storage element 7 is a bowstring, which is configured to be tensioned by the cocking arm 6. As shown, the cocking arm 6 extends towards the force-storage element 7. Furthermore, the cocking arm 6 comprises a tensioning end 6a configured to engage with the force-storage element 7.

**[0044]** Furthermore, the trigger section 2 and the release section 4 are foldable in a common plane.

**[0045]** Fig. 4 shows a bow weapon 10 with a foldable cocking mechanism 1 in the folded state FO.

**[0046]** The bow weapon 10 of Fig. 3 is now shown in the firing state FR. The force-storage element 7 is shown in close proximity of the rocker 5 and essentially held in position by the rocker 5. As shown, the force-storage element 7 has been brought into this position by the tensioning end 6a of the cocking arm 6. Furthermore, the trigger section 2 is shown folded from the release section 4 about the axis A. The trigger element 3 is shown separated from the rocker 5, as the foldable cocking mechanism 1 is in the folded state FO.

**[0047]** Fig. 5 shows a flow chart of a method of cocking a bow weapon 10.

**[0048]** The shown method of cocking a bow weapon comprises two method steps C1 and C2. The numbering

of the method steps C1, C2 only serves as a means to differentiate the different method steps C1, C2 from each other and does not imply an order in which the method steps C1, C2 have to be carried out. The order of the method steps C1, C2 can be carried out in a different order than is shown in Fig. 5.

**[0049]** The method of cocking a bow weapon comprises the steps of moving C1 a foldable cocking mechanism 1 from a firing state FR to a folded state FO by folding a trigger section 2 comprising a trigger element 3 and a release section 4 comprising a rocker 5 with respect to an axis A. The method further comprises moving C2 the foldable cocking mechanism 1 from the folded state FO to the firing state FR by folding the trigger section 2 and the release section 4 with respect to the axis A, wherein a trigger element 3 and rocker element 5 are engaged.

**[0050]** Fig. 6 shows a flow chart of a method of assembling a foldable cocking mechanism 1.

**[0051]** The shown method of assembling a foldable cocking mechanism 1 comprises five method steps V1 to V5. The numbering of the method steps steps V1 to V5 only serves as a means to differentiate the different method steps steps V1 to V5 from each other and does not imply an order in which the method steps steps V1 to V5 have to be carried out. The order of the method steps steps V1 to V5 can be carried out in a different order than is shown in Fig. 6.

**[0052]** The method for assembling a foldable cocking mechanism comprises the steps of providing V1 a trigger section 2, which comprises a trigger element 3 and providing V2 a release section 4, which comprises a rocker 5 configured to be actuated by the trigger element 3 in a firing state FR of the mechanism 1. The method further comprises arranging V3 the trigger section 2 and the release section 4 in a foldable manner with respect to an axis A, such that the rocker 5 is actuatable by the trigger element 3 in the firing state FR and the trigger element 3 is separated from the rocker 5 in the folded state FO.

**[0053]** The method of assembling a foldable cocking mechanism can further comprise providing V4 a cocking arm 6 configured to tension a force-storage element 7 by the movement of the mechanism 1 from the firing state FR to the folded state FO. Additionally, the method of assembling a foldable cocking mechanism can further comprise coupling V5 the cocking arm 6 to the trigger section 2.

**[0054]** In particular, the step of arranging V3 can comprise arranging the trigger section 2 and release section 4 in such a way that they are foldable in a common plane.

**[0055]** Although specific embodiments of the invention are illustrated and described herein, it will be appreciated by those of ordinary skill in the art that a variety of alternative and/or equivalent implementations exist. It should be appreciated that the exemplary embodiment or exemplary embodiments are examples only and are not intended to limit the scope, applicability, or configuration in any way. Rather, the foregoing summary and

detailed description will provide those skilled in the art with a convenient road map for implementing at least one exemplary embodiment, it being understood that various changes may be made in the function and arrangement of elements described in an exemplary embodiment without departing from the scope as set forth in the appended claims and their legal equivalents. Generally, this application is intended to cover any adaptations or variations of the specific embodiments discussed herein.

**[0056]** It will also be appreciated that in this document the terms "comprise", "comprising", "include", "including", "contain", "containing", "have", "having", and any variations thereof, are intended to be understood in an inclusive (i.e. non-exclusive) sense, such that the process, method, device, apparatus or system described herein is not limited to those features or parts or elements or steps recited but may include other elements, features, parts or steps not expressly listed or inherent to such process, method, article, or apparatus. Furthermore, the terms "a" and "an" used herein are intended to be understood as meaning one or more unless explicitly stated otherwise. Moreover, the terms "first", "second", "third", etc. are used merely as labels, and are not intended to impose numerical requirements on or to establish a certain ranking of importance of their objects.

#### LIST OF REFERENCE SIGNS

##### **[0057]**

- 1 foldable cocking mechanism
- 2 trigger section
- 3 trigger element
- 4 release section
- 5 rocker
- 6 cocking arm
- 7 force-storage element
- 8 roller
- 9 safety
- 10 weapon
- 11 lever
- 12 magazine
- 13 spring
- 14 pin

FR firing state  
FO folded state

#### **Claims**

1. A foldable cocking mechanism (1) for a bow weapon, the foldable cocking mechanism (1) comprising:

a trigger section (2), which comprises a trigger element (3), and  
a release section (4), which comprises a rocker (5) configured to be actuated by the trigger element (3) in a firing state (FR) of the mechanism

(1);  
wherein the trigger section (2) and the release section (4) are foldable with respect to an axis (A) in order to change the state of the mechanism (1) between the firing state (FR) and a folded state (FO), and  
wherein the trigger element (3) is configured to engage with the rocker (5) in the firing state (FR) and be separated from the rocker (5) in the folded state (FO).

2. The foldable cocking mechanism according to claim 1, wherein a cocking arm (6) is coupled to the trigger section (2) and configured to tension a force-storage element (7) by the movement of the mechanism (1) from the firing state (FR) to the folded state (FO).

3. The foldable cocking mechanism according to claim 2, wherein the force-storage element (7) comprises a bowstring which is configured to be tensioned by the cocking arm (6).

4. The foldable cocking mechanism according to any of the previous claims, wherein the trigger section (2) and the release section (4) are foldable in a common plane.

5. The foldable cocking mechanism according to any of the claims 2, 3 or 4,

wherein the rocker (5) comprises a first end (5a) and a second end (5b), and  
wherein the first end (5a) comprises a roller (8) configured to be actuateable by the trigger element (3), and  
wherein the second end (5b) is configured to hold and/or release the force-storage element (7).

6. The foldable cocking mechanism according to any of the claims 2 to 5, wherein the cocking arm (6) comprises a tensioning end (6a) configured to engage with the force-storage element (7).

7. The foldable cocking mechanism according to any of the previous claims, wherein the rocker (5) and trigger element (3) are spring-loaded.

8. The foldable cocking mechanism according to any of the previous claims, wherein the mechanism (1) comprises a safety (9) configured to obstruct movement of the mechanism (1) between the firing state (FR) and a folded state (FO).

9. The foldable cocking mechanism according to claim 8, wherein the safety (9) is configured as a lever (11) pivotably coupled to the trigger section (2), and wherein the lever (11) is configured to obstruct se-

paration of the trigger section (2) and release section (4).

- 10.** A bow weapon (10) comprising a foldable cocking mechanism (1) according to any of the claims 1 to 9. 5
- 11.** The bow weapon according to claim 10, further comprising a magazine (12) configured to load a projectile, in particular an arrow, into the release section (5) when the mechanism (1) is moved from the firing state (FR) to the folded state (FO). 10
- 12.** A method of cocking a bow weapon, in particular a bow weapon according to one of claims 10 or 11, the method comprising the steps of: 15

moving (C1) a foldable cocking mechanism (1) from a firing state (FR) to a folded state (FO) by folding a trigger section (2) comprising a trigger element (3) and a release section (4) comprising a rocker (5) with respect to an axis (A) ; 20

moving (C2) the foldable cocking mechanism (1) from the folded state (FO) to the firing state (FR) by folding the trigger section (2) and the release section (4) with respect to the axis (A), wherein a trigger element (3) and rocker element (5) are engaged. 25

- 13.** A method for assembling a foldable cocking mechanism, in particular a foldable cocking mechanism according to any of claims 1 to 9, the method comprising the steps of: 30

providing (V1) a trigger section (2), which comprises a trigger element (3); 35

providing (V2) a release section (4), which comprises a rocker (5) configured to be actuated by the trigger element (3) in a firing state (FR) of the mechanism (1);

arranging (V3) the trigger section (2) and the release section (4) in a foldable manner with respect to an axis (A), such that the rocker (5) is actuatable by the trigger element (3) in the firing state (FR) and the trigger element (3) is separated from the rocker (5) in the folded state (FO) . 40 45

- 14.** The method of assembling a foldable cocking mechanism according to claim 13, wherein the method further comprises the steps of: 50

providing (V4) a cocking arm (6) configured to tension a force-storage element (7) by the movement of the mechanism (1) from the firing state (FR) to the folded state (FO) ; and 55

coupling (V5) the cocking arm (6) to the trigger section (2) .

- 15.** The method of assembling a foldable cocking mechanism according to any of the claims 13 or 14, wherein the step of arranging (V3) comprises: arranging the trigger section (2) and release section (4) in such a way that they are foldable in a common plane.



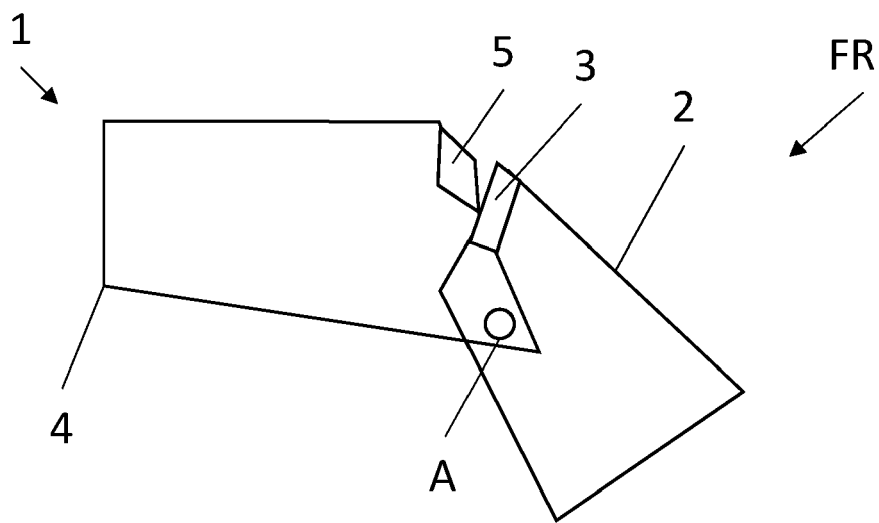


Fig. 1A

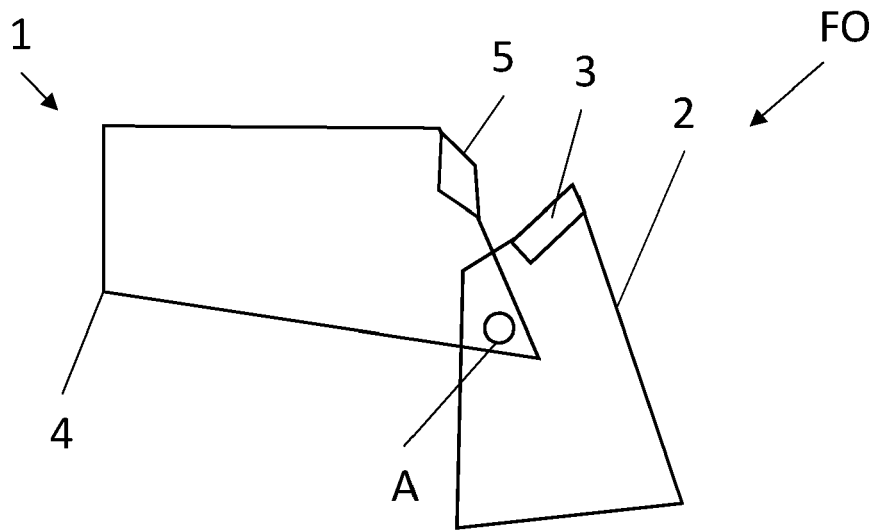


Fig. 1B

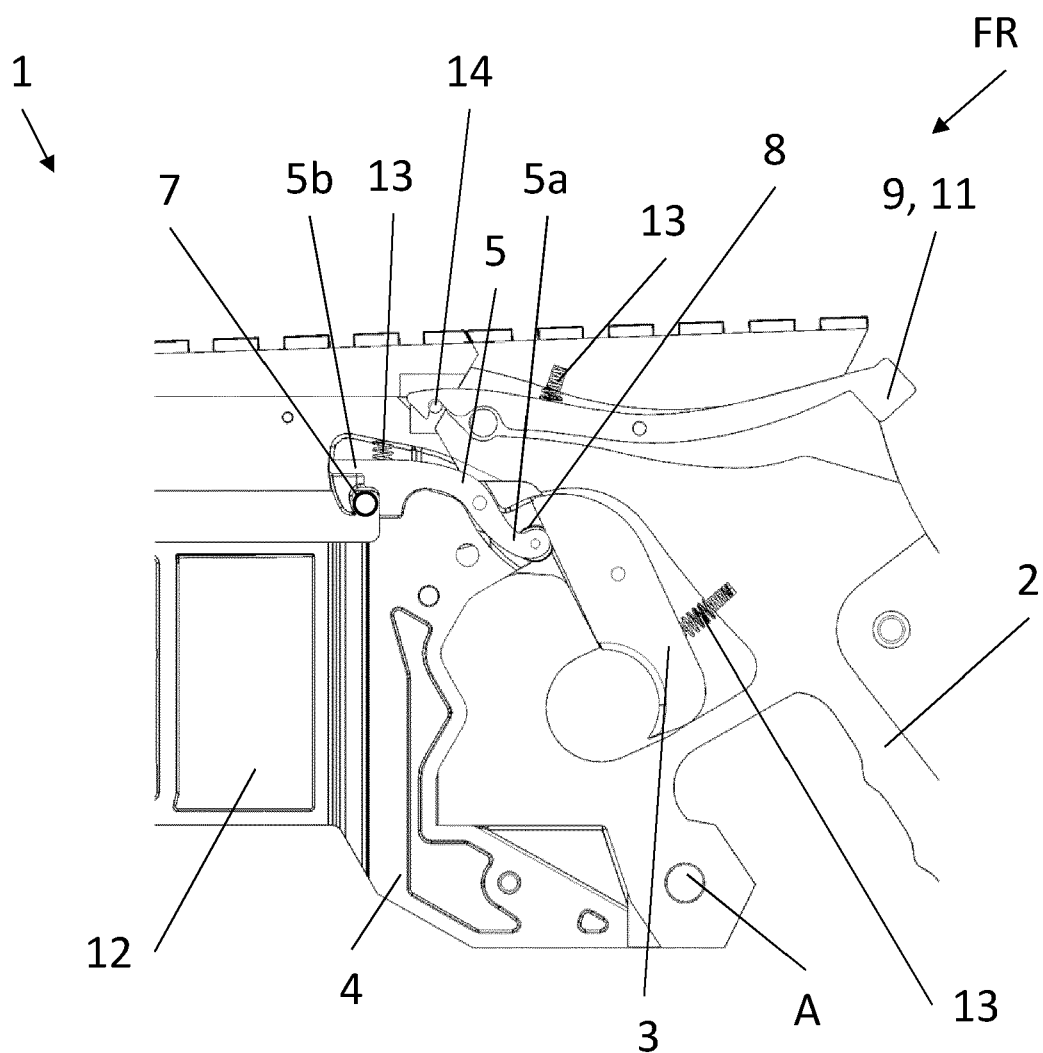


Fig. 2

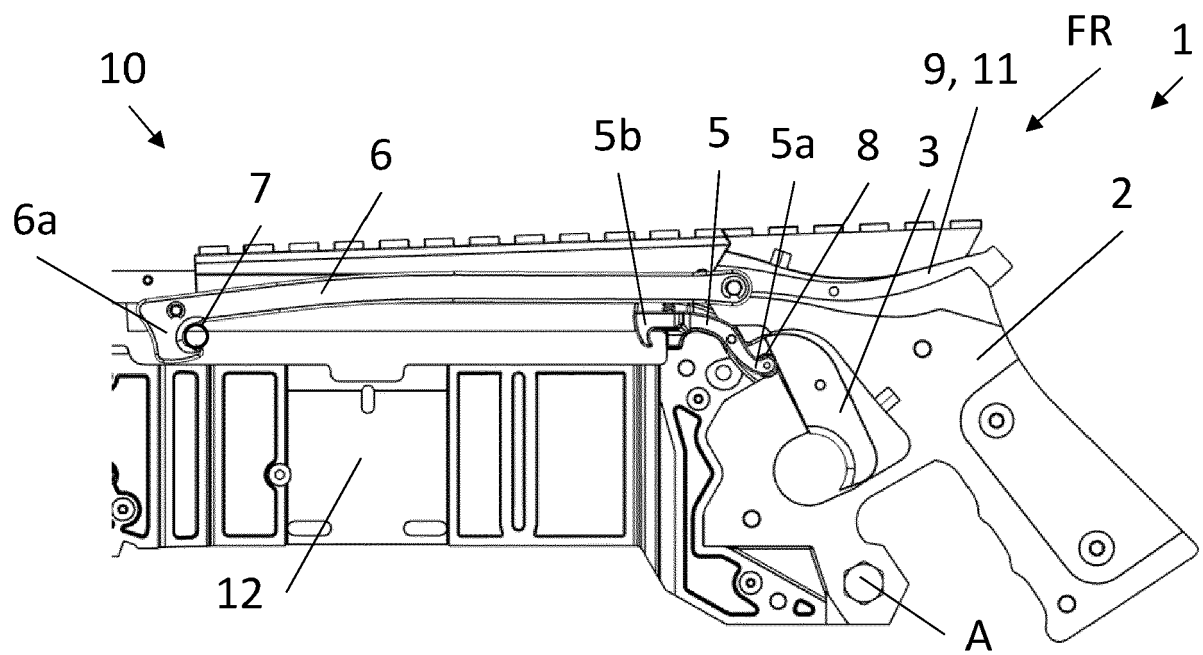


Fig. 3

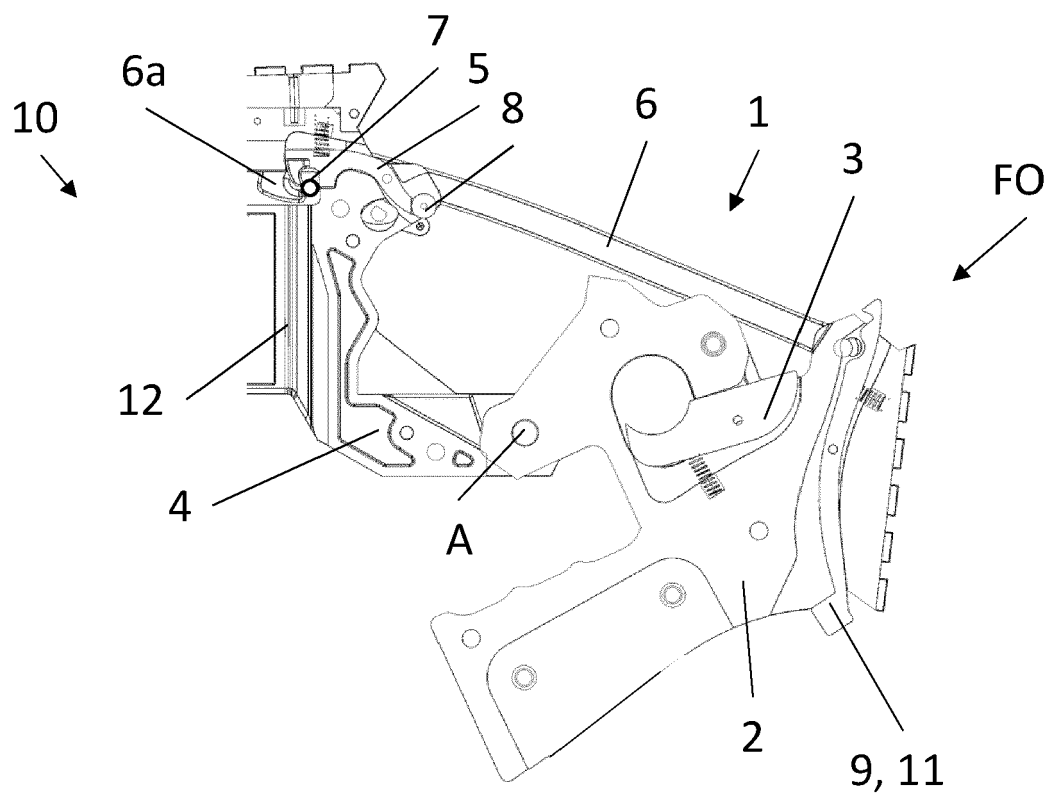


Fig. 4

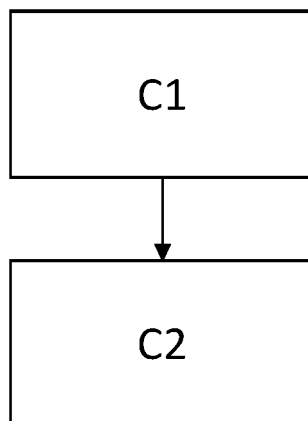


Fig. 5

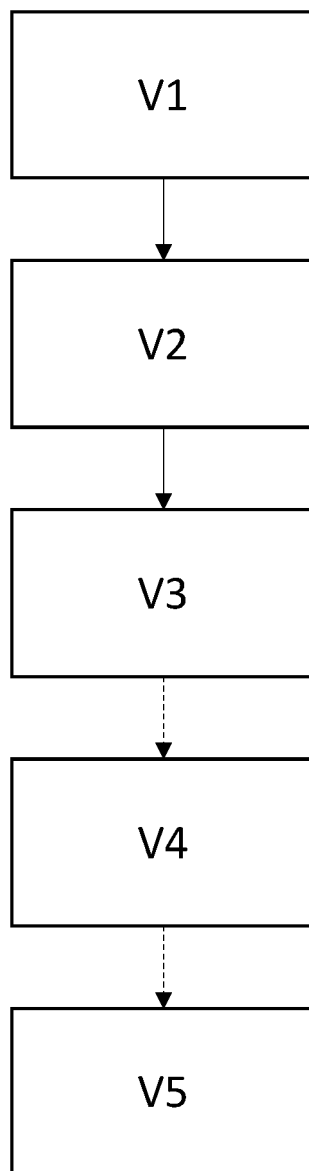


Fig. 6



## EUROPEAN SEARCH REPORT

Application Number

EP 23 17 9294

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			F41B F41A
Place of search			Examiner
The Hague			Seide, Stephan
Date of completion of the search			
15 November 2023			
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15-11-2023

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