March 18, 1947. C. TYSZKIEWICZ 2,417,791

ARCHERY DEVICE

Filed June 7, 1944

Fig. 1.

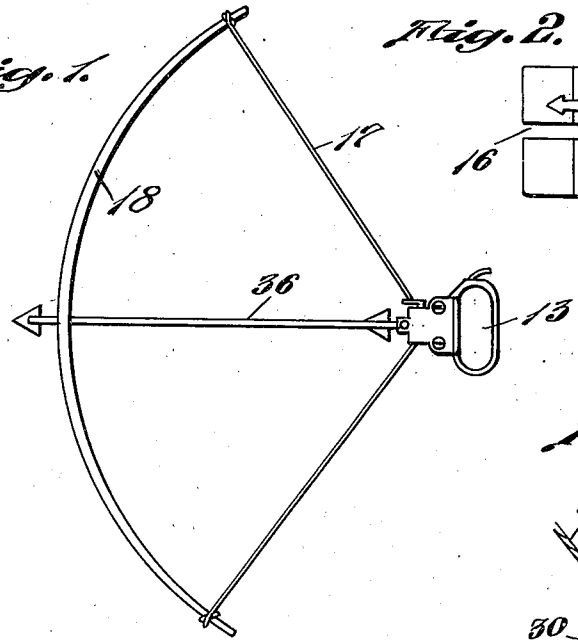


Fig. 2.

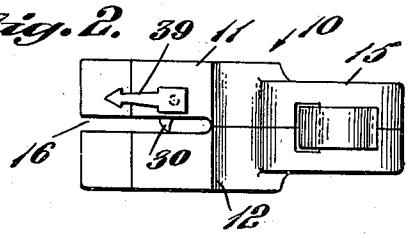


Fig. 4.

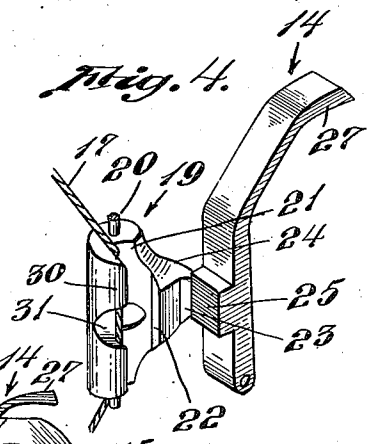


Fig. 3.

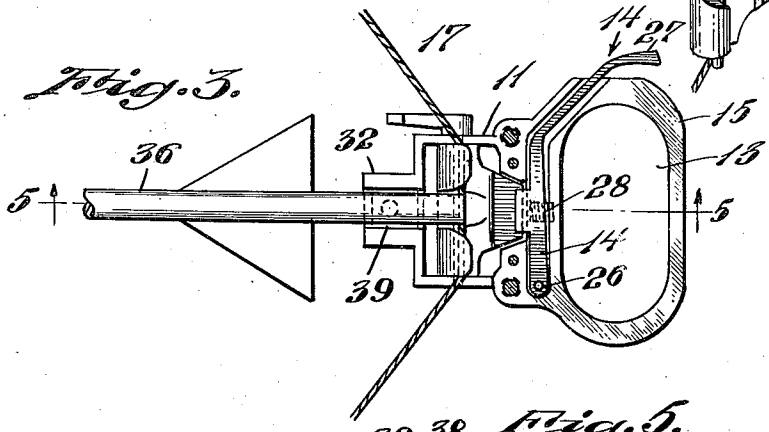


Fig. 5.

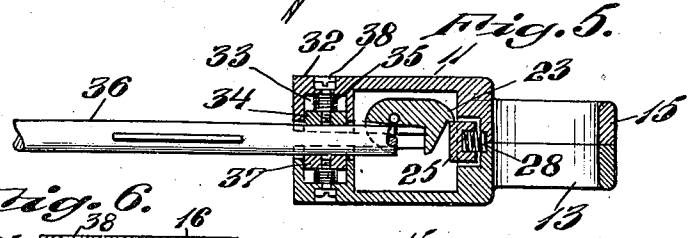
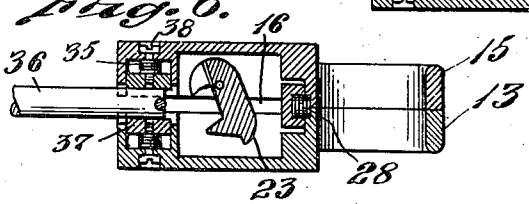


Fig. 6.



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UNITED STATES PATENT OFFICE

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ARCHERY DEVICE

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Application June 7, 1944, Serial No. 539,149

8 Claims. (Cl. 124—35)

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This device relates to archery, more particularly to a device for facilitating the drawing of the bow string of the bow and arrow.

In archery, drawing the bow string and holding the arrow in position is a difficult feat for some persons, especially young people who do not have sufficient strength in their fingers to pull a substantial load upon the bow string, or their fingers may be tender and the bow string becomes so uncomfortable that great pressure cannot be utilized.

One of the objects of this invention is to provide a device which will make possible the withdrawing of the bow string to the desired extent by enabling a person to get a better hold on the bow string than with the use of his fingers alone.

Another object of this invention is to provide a device so arranged that the arrow and bow string will both be held in their desired relation and a large area will be provided for gripping by the entire hand of the person using it so that full pressure or force may be exerted to withdraw the bow string preliminarily to shooting the arrow.

Another object of this invention is to provide a simple release for the bow string when it is desired to let go the arrow.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings:

Fig. 1 is an elevation illustrating a bow and arrow with my device in operating position;

Fig. 2 is a top plan view of the device;

Fig. 3 is a view of one-half of the body with the operating parts shown in position in this half of the body;

Fig. 4 is a perspective view illustrating the bow string engaging member and the trigger;

Fig. 5 is a sectional view on substantially line 5—5 of Fig. 3;

Fig. 6 is a sectional view of the bow string engaging member just after being released.

In proceeding with this invention I provide a body part in which a member is pivoted, which member is controlled in its movement by a trigger. The member has hook shaped portions to engage the bow string and prevent the string from moving out of a slot in the body until the trigger is moved to release the member so that it may pivot and release the bow string. A suitable friction clutch is provided for the arrow so as to maintain it in engagement with the string during flexing of the bow.

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With reference to the drawings I have provided a body which is designated generally 10 and consists of two parts 11 and 12 which are suitably held together. The body is so shaped as to provide an opening 13 for the reception of the fingers of the user so that the entire hand may be placed into this opening 13 for pulling back the bow string and flexing the bow. A trigger designated generally 14 is adjacent this part of the body, the handle part of which I designated 15, so that while the fingers are in the opening 13 the trigger may be released.

The assembled parts 11 and 12 of the body provide a slot 16 between them for the reception of the bow string 17 of the bow 18 which is shown in Fig. 1. A bow string engaging member designated 19 has trunnions 20 at either end pivotally mounted in the part 11 of the body so as to rock around this pivotal mounting. This member 19 is somewhat cylindrical and is recessed as at 21 so as to provide an abutment 22 or portion extending somewhat radially from the pivot 20. As the string 17 is inserted in the slot the string will engage this portion 22 at one side of the pivot and rock the member 19 about its pivot until the latch portion 23 thereof which is wedge shape on one surface as at 24 swings back of the block 25 of the trigger 14. This trigger is pivoted as at 26 in the body and extends upwardly to provide a handle portion 27 to be engaged by the thumb. A spring 28 serves to move this trigger forwardly when not pressed upon by the thumb on portion 27.

The forward part of the member 19 consists of a pair of hook portions 30 which are spaced to provide an opening 31 between them. These hook shape portions 30 engage the bow string 17 and prevent the bow string from moving outwardly through the slot 16 while the member is locked by the trigger.

The forward portion 32 of the body is recessed as at 33 and a pair of shoes 34, spring pressed as at 35, force these shoes inwardly so as to frictionally engage arrow 36 which is to be discharged by the bow and bow string. The shoes are limited in their inward movement by being engaged by the threaded end of a bolt 37 which has a head 38 limiting its inward movement. Adjustment is provided by the threaded engagement.

In operation, the bow string 17 is inserted in the slot 16 and as it is moved therein it engages the abutment 22 of the member 19 to swing this member to be locked by the trigger 14. In swinging this member the hook portions 30 of the

member are moved across the slot 16 so that the string 17 cannot escape. A slight tension is placed upon the device so as to bring the string up against the hook portions 30 and then the arrow 36 is inserted in the opening 39 in forward portion 32 of the device so as to be engaged by the shoes 34. The notch in the arrow is placed in engagement with the string 17. The fingers are then inserted in the opening 13 in the body with the thumb in a position so that it may engage the handle 27 of the trigger 14. The bow string is then pulled back until sufficient tension is had and then when it is desired to discharge the arrow it is merely necessary to press on the portion 27 of the trigger so as to swing the trigger about its pivot 26 withdrawing the portion 25 from the latch 23 and permitting the member 19 to rock about its pivot so as to move the hook portions 30 from a point across the slot 16 and thus with no obstruction to the string moving out of the slot 16 the string will pass out of the slot and the arrow will be discharged leaving the device in the hand of the user.

In order that it may be known just what position the member 19 is in, an arrow 39 is mounted upon the member 19 so as to move therewith, the arrow in the position shown in Fig. 2 indicating the locked position of the device of the member 19 ready to discharge, while if the arrow is moved to the right through 90° it will indicate that the device is ready for loading with the bow string.

I claim:

1. In an archery device a body, a member for engaging a bow string, means for pivotally mounting said member in said body, a movable trigger pivotally mounted about an axis extending at substantially right angles to the axis of said member and normally positioned to engage said member to lock the same against movement to release position, said trigger being manually movable to release said member to permit movement to release the bow string.

2. In an archery device a body, a member for engaging a bow string, means for pivotally mounting said member in said body, a movable trigger pivotally mounted about an axis extending at substantially right angles to the axis of said member and normally positioned to engage said member to lock the same against movement to release position, said trigger being manually movable to release said member to permit movement to release the bow string, and means for frictionally retaining an arrow in the body in engagement with the bow string.

3. In an archery device, a body, a spring pressed trigger, a member pivoted in said body having on one side of the pivot an abutment to be engaged by the bow string to move the member to be positioned on one side of said trigger and on the other side of the pivot spaced hook shaped portions between which an end portion of the arrow may extend to engage said bow string and prevent release thereof while force is applied to the device to flex the bow, said trigger being normally positioned in the path of movement of said member and manually moved out of said path for releasing said member for rocking about its pivot to release said string.

4. In an archery device, a body having a slot therein for the reception of a bow string and an opening for the reception of the fingers, a spring pressed trigger, a member pivoted in said body having on one side of the pivot an abutment to be engaged by the bow string to move the member to be positioned on one side of said trigger and on the other side of the pivot spaced hook shaped portions between which an end portion of the arrow may extend to engage said bow string and prevent release thereof while force is applied to the device to flex the bow, said trigger being normally positioned in the path of movement of said member and manually moved out of said path for releasing said member for rocking about its pivot to release said string.

5. In an archery device, a body having a slot therein for the reception of a bow string and an opening for the reception of the fingers, a spring pressed trigger having a handle adjacent said finger opening, a member pivoted in said body having on one side of the pivot an abutment to be engaged by the bow string to move the member to be positioned on one side of said trigger and on the other side of the pivot spaced hook shaped portions between which an end portion of the arrow may extend to engage said bow string and prevent release thereof while force is applied to the device to flex the bow, said trigger being normally positioned in the path of movement of said member and manually moved out of said path for releasing said member for rocking about its pivot to release said string.

6. In an archery device, a body, a spring pressed trigger, a member pivoted in said body having on one side of the pivot an abutment to be engaged by the bow string to move the member to be positioned on one side of said trigger and on the other side of the pivot spaced hook shaped portions between which an end portion of the arrow may extend to engage said bow string and prevent release thereof while force is applied to the device to flex the bow, said trigger being normally positioned in the path of movement of said member and manually moved out of said path for releasing said member for rocking about its pivot to release said string and means for frictionally retaining an arrow in said body between the spaced hook shaped portions of said member.

7. In an archery device, a body having a slot therein for the reception of a bow string and an opening for the reception of the fingers, a spring pressed trigger having a handle adjacent said finger opening, a member pivoted in said body having on one side of the pivot an abutment to be engaged by the bow string to move the member to be positioned on one side of said trigger and on the other side of the pivot spaced hook shaped portions between which an end portion of the arrow may extend to engage said bow string and prevent release thereof while force is applied to the device to flex the bow, said trigger being normally positioned in the path of movement of said member and manually moved out of said path for releasing said member for rocking about its pivot to release said string, and means for frictionally retaining an arrow in said body between the spaced hook shaped portions of said member.

8. In an archery device, a body, a spring pressed trigger, a member pivoted in said body having on one side of the pivot an abutment to be engaged by the bow string to move the member to be positioned on one side of said trigger and on the other side of the pivot spaced hook shaped portions between which an end portion of the arrow may extend to engage said bow string and prevent release thereof while force is applied to the device to flex the bow, said trigger being normally positioned in the path of movement of

said member and manually moved out of said path for releasing said member for rocking about its pivot to release said string, and friction clutch means for frictionally retaining an arrow in said body between the spaced hook shaped portions of said member.

CARL TYSZKIEWICZ.

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The following references are of record in the file of this patent:

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