June 22, 1937. G. FLURY 2,084,634

ARCHERY DEVICE

Original Filed Jan. 31, 1935

Fig. 1.

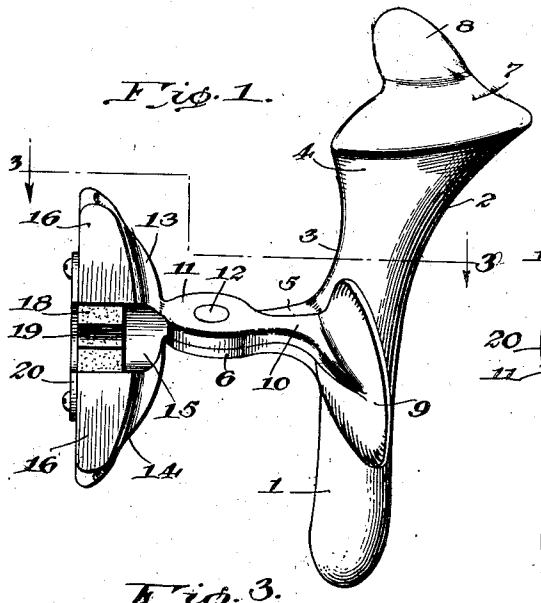



Fig. 2.

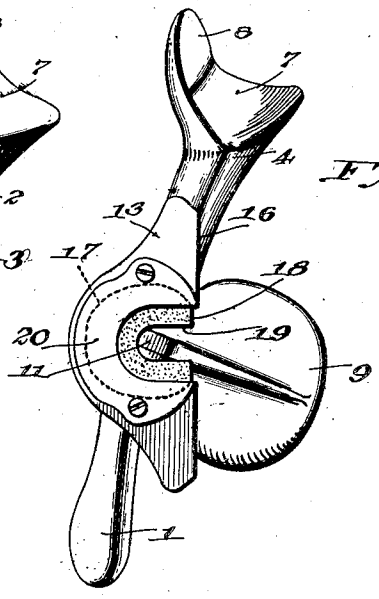



Fig. 3.

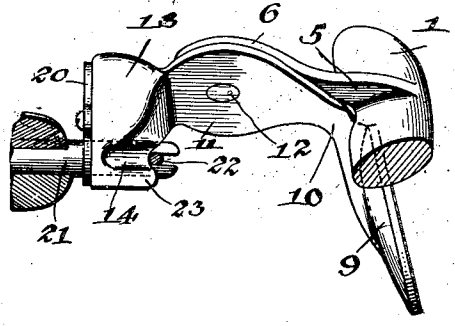



Fig. 4.

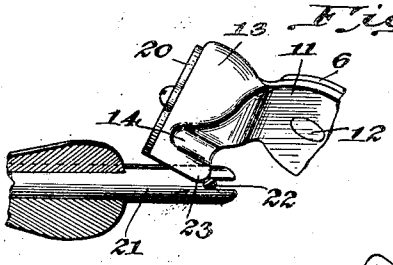



Fig. 5.

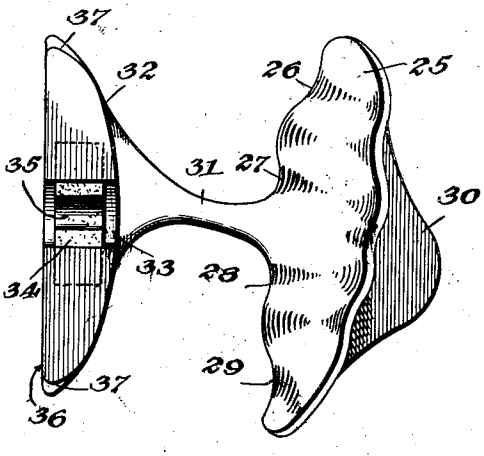
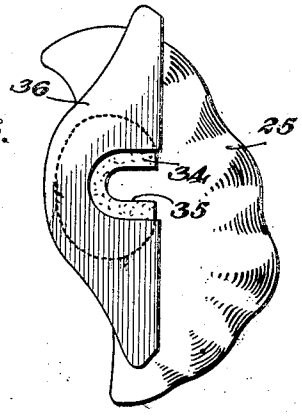



Fig. 6.




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# UNITED STATES PATENT OFFICE

2,084,634

## ARCHERY DEVICE

Godfrey Flury, Austin, Tex.

Application January 31, 1935, Serial No. 4,408
Renewed May 12, 1937

4 Claims. (Cl. 273—107.5)

My invention relates to improvements in archery devices, more particularly in devices for engaging and drawing back the string and arrow and for releasing them, and it consists in the combinations, constructions and arrangements herein described and claimed.

In the use of the bow and arrow the fingers or hands of the archer are sometimes rendered sore and even injured from continuous gripping of the arrow and the release. In a prior Patent No. 2,000,015, of May 7, 1935, I disclosed a means whereby the arrow is gripped by a pair of jaws near the rear end thereof by an archery device. I have found, however, that it is not necessary to make use of two jaws and the present invention differs from that in the pending application in that one jaw is dispensed with, thus simplifying the apparatus.

An object of my invention is to provide an archery device of the type described which will make the effort of drawing and releasing easier and which will also increase the accuracy.

A further object of the invention is to provide a device which is lighter in weight than one having two jaws.

A further object is to provide a device of the type described in which the action of the device more nearly simulates the action of an archer in the release of an arrow by relaxation of the fingers.

A further object of the invention is to provide a device which will positively engage the string to draw it back while frictionally holding the arrow as distinguished from the positive gripping action of the two jaws in my prior application.

A further object is to provide a device of the type having an anchoring means for steadying the device against the jaw of the archer.

Other objects and advantages will appear in the following specification and the novel features of the invention will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawing forming part of this application, in which:—

Figure 1 is a side view of one form of the invention,

Figure 2 is a front view,

Figure 3 is a sectional view along the line 3—3 of Figure 1 looking in the direction of the arrows, a portion of an arrow being shown in connection with the view,

Figure 4 is a view similar to Figure 3 but showing the arrow and string at the moment of release,

Figure 5 is a side view of a modified form, and

Figure 6 is a front view of the form shown in Figure 5.

In carrying out my invention I provide a grip portion 1 of the shape shown in Figure 1. This grip portion it will be observed has a curve 2 on one side thereof to conform to the palm of the hand while the opposite side is curved at 3 to accommodate the first and second fingers, the thumb passing over the surface of the grip at 4. It will be understood that the device illustrated in Fig. 1 is for a right-handed archer so that the device when gripped by the right hand will have the thumb toward the observer with the fingers passing to the rear of the device as illustrated in Fig. 1 and being bent around toward the palm.

It will be seen that the grip portion has a laterally extending neck 5 terminating in a substantially circular ear 6. At the top of the grip member, as shown in Fig. 1, is an anchor which consists of a surface 7 arranged to fit under the jaw of the archer and an upstanding portion 8 adapted to engage the side of the jaw in the manner hereinafter described.

Cooperating with the grip member is a plate 9 having a laterally extending neck 10 and a circular portion 11 conforming to the circular portion 6, the two being pivoted together by a pivot pin 12.

An integral string-engaging member 13 is provided with a curved groove 14 which is adapted to receive the string of the bow (not shown). This string-engaging member 13 is provided with a transverse slot 15 and with a flat face 16 which is traversed by the slot 15 as clearly shown in the drawing. The bow portion of the string-engaging member 13 is hollowed out, as shown in dotted lines in Fig. 2, to provide a housing 17 for a resilient member 18 of rubber or the like. This rubber member has the contour shown in dotted lines in Fig. 2 and it is provided with a groove 19 which is coaxial with the slot 15. A retaining plate 20 may be affixed to the front face of the string-engaging member so as to close the housing, thereby preventing any inadvertent displacement of the resilient member 18.

From the foregoing description of the various parts of the device the operation thereof may be readily understood. In using the device the string of the bow is passed around the groove 14, that portion of the arrow near the end being disposed in the groove 19 of the resilient member in the manner shown in Fig. 3 in which the arrow is shown at 21 and the string at 22. The

bow is then flexed by pulling rearwardly on the device. It will be understood that the first and second fingers are above the neck portion 10 of the grip while the third and fourth fingers are below the neck portion 5. In other words, the second and third fingers straddle the neck portions, the second finger engaging the upper portion of the plate, as shown in Fig. 1, and the third finger engaging the lower portion. This permits the archer to grip firmly and to draw back steadily. Now when the right tension is reached the device is steadied by placing the anchor against the jaw. The aim is taken and the fingers are relaxed. Tension of the string on the string-engaging member 13 tends to swing it about its pivot 12 in the manner shown in Fig. 4. This tends to crowd the arrow 21 out of the groove 19 in which it was frictionally held and also to permit the string to pass the corner 23. When this occurs the string and arrow are released and the arrow is fed towards its target.

It will be understood that the arrow is slightly larger than the groove 19 so that when it is placed in registration with the groove it can be forced in with very little pressure yet enough to hold the arrow frictionally while the string is being drawn back to flex the bow.

I have found that this device relieves the tension on the fingers which accompanies the ordinary use of the bow and arrow. It is just as effective in drawing back the string and tensioning the bow and one can shoot with just as great accuracy, and in some cases with more accuracy, than he can where the gripping of the arrow by the bare fingers tends to cause soreness of the latter.

In Fig. 5 I have shown a modified form of the device which has certain features in common with the form just described. The hand grip 25 in the modified form shown in Fig. 5 consists of an integral plate which is stamped molded, or otherwise fashioned to fit the hand, the first finger lying in the groove 26, the second in the groove 27, the third in the groove 28, and the little finger in the groove 39. The palm of the hand is against a portion 30 which in Fig. 5 is beyond the plane of the paper.

This plate 25 has an integral neck portion 31 which connects with a string-engaging member 32 of substantially the same construction as the string-engaging member 13, that is to say, it has a central slot 33, a resilient member 34 provided with a groove 35, similar to the groove 19 in the form described, and it has a plate 36 forming a portion of the housing in which the resilient member 34 is disposed.

In using this form of the device the string is placed in the rear slot of the arrow and the latter is placed in the groove 35, the string entering the groove 37. The bow is grasped and the bow and arrow are drawn rearwardly as already described. The tension of the string on the string-engaging member 32 and the frictional action of the arrow on the resilient member 33 are such that by a slight relaxation of the fingers the string-engaging portion will be moved into a similar position as that shown in Fig. 4 in connection with the form just described. When the arrow and string reach this position they will be released precisely as they are released when the member 13 as shown in Fig. 1 swings on its pivots from the release of the plate 9.

The form shown in Fig. 5 has certain advantages in that it has no relatively movable parts During the movement of the string-engaging member 32, when the fingers are relaxed, that portion 30 which is against the palm of the hand swings outwardly during the hinging or pivotal movement which in the form shown in Fig. 5, is really along the knuckles of the hand.

Both of these devices give an archer accuracy and at the same time relieve him of soreness from the constant friction caused by the retraction of the arrow and string.

I claim:—

1. An archery device comprising a hand grip, a plate having a neck pivotally connected therewith, a string-engaging member carried on the opposite side of the pivot by said neck and being provided with a groove facing the plate and the grip for receiving a bow string, said string-engaging member having a resilient arrow-engaging portion, said plate and said string-engaging member being shiftable by the release of the fingers of the hand, and an anchor device at one end of said grip having a contour adapted to engage the jaw of the archer.

2. An archery device comprising a hand grip having an integral neck and an integral string-engaging member, said string-engaging member having a groove for receiving a bow string and being provided with a slot extending inwardly from one side thereof, and a compressible member disposed in the slot for engaging an arrow, said hand grip, neck and string-engaging members being movable as a unit through the tension on the bow string to release the string when the pulling tension on the hand grip is released.

3. An archery device comprising a hand grip, a bow string-holding member having a central slot extending inwardly from one edge thereof, and a resilient member disposed in said slot and having a groove extending inwardly from one edge and in registration with said slot.

4. An archery device comprising a hand grip, a plate having a neck pivotally connected therewith, a string-engaging member carried on the opposite side of the pivot by said neck and being provided with a groove extending inwardly from one edge thereof, a resilient member disposed in said groove and being provided with a slot registering with the groove, and a plate secured to said string-engaging member for holding the resilient member in position, said plate having a recess registering with the slot and groove, said plate and said string-engaging member being respectively movable to release the bow string.

GODFREY FLURY.