Dec. 3, 1957 W. H. KELLOGG 2,815,016

LONG BOW ATTACHMENT

Filed March 4, 1955 2 Sheets-Sheet 1

FIG. 1

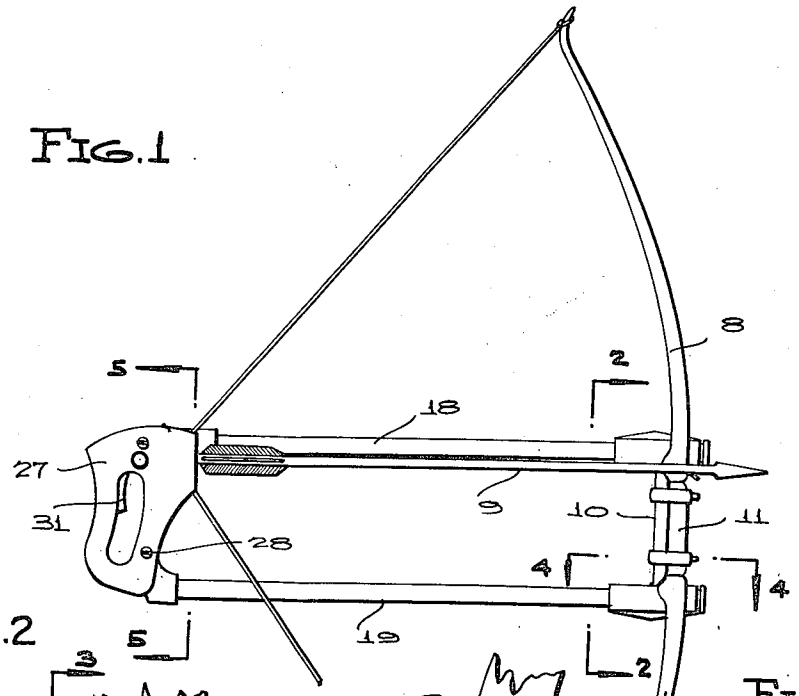


FIG. 2

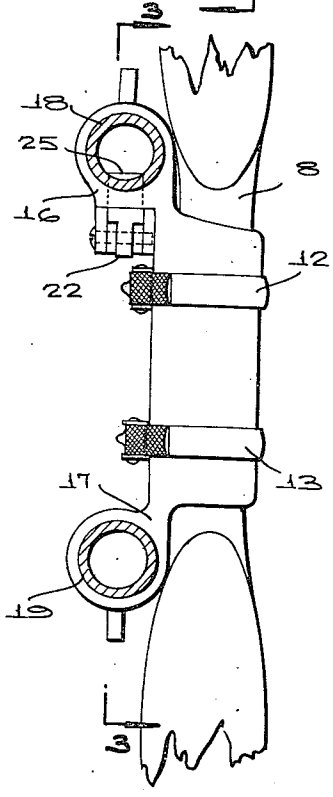
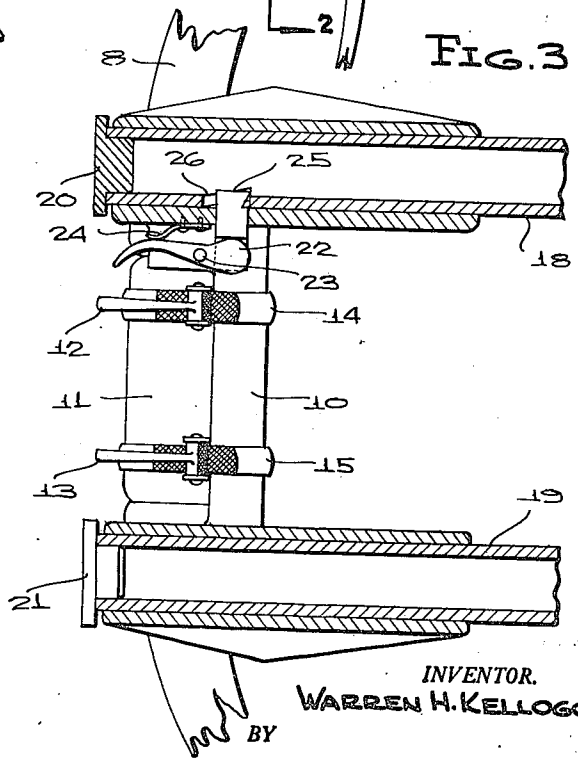


FIG. 3



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Dec. 3, 1957 W. H. KELLOGG 2,815,016

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Filed March 4, 1955 2 Sheets-Sheet 2

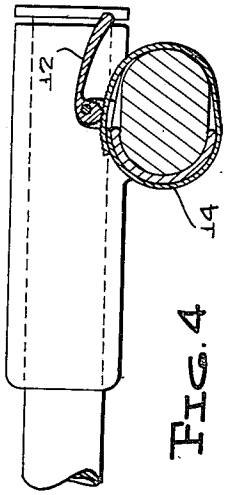


Fig. 4

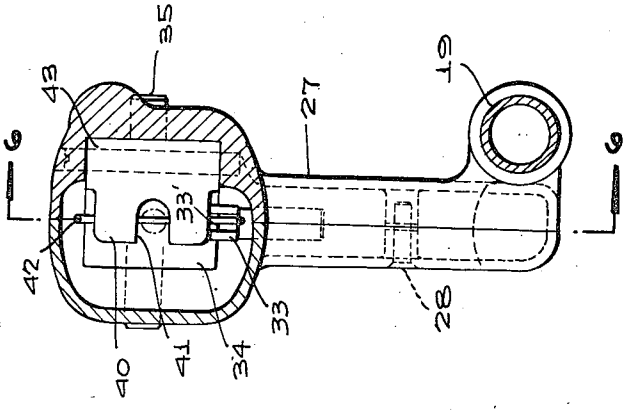


Fig. 5

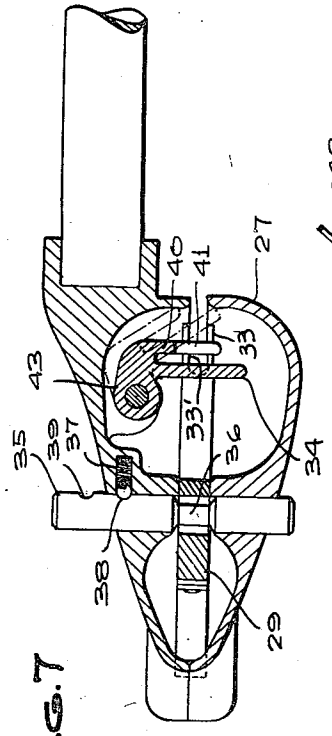


Fig. 7

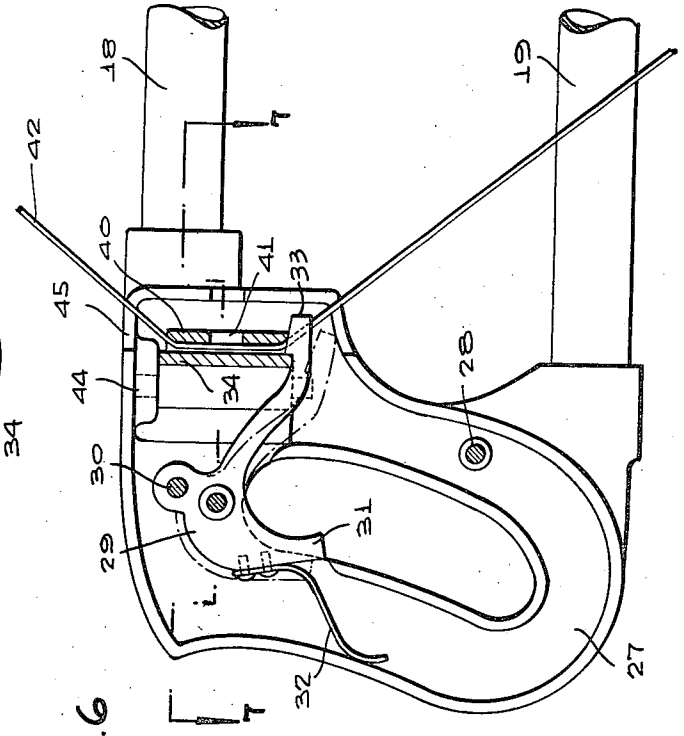


Fig. 6

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LONG BOW ATTACHMENT

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3 Claims. (Cl. 124—35)

This invention relates, in general, to long bows, such as one employed for shooting arrows, as in archery, hunting, and the like, and has more specific reference to a novel fitting that can easily and quickly be attached to any standard or usual long bow.

When a bow is so fitted with this attachment, the bowman is enabled not only to use a heavier pull bow than is normally practical, but shoot arrows with added accuracy, and with much less than the usual strain and muscular effort. This constitutes one of the main objects of this invention.

A further object of this invention is to provide means for greatly facilitating the bending or cocking of the bow, preparatory to shooting or releasing, an arrow.

A further object of this invention is to relieve strain on the bowman while he is aiming or preparing to release an arrow, thus insuring much greater accuracy than could otherwise be realized.

Further objects of this invention are to produce a fitting of this character which can be quickly and inexpensively produced, which is rugged and long lived in use, which is of simple construction, and is more efficient and satisfactory in accomplishing its objects and purposes, than are any that are now available.

In the accompanying drawings is shown, solely by way of example, and in no manner in a limiting sense, one specific form or embodiment which this invention can assume.

Referring now to the drawings:

Figure 1 is a front elevational view, with parts broken away, of one form of this invention,

Figure 2 is a sectional view on line 2—2 of Figure 1, and viewed in the direction of the arrows,

Figure 3 is a sectional view on line 3—3 of Figure 2, and viewed in the direction of the arrows.

Figure 4 is a sectional view on line 4—4 of Figure 1, and viewed in the direction of the arrows,

Figure 5 is a sectional view on line 5—5 of Figure 1, and viewed in the direction of the arrows,

Figure 6 is a sectional view on line 6—6 of Figure 5, and viewed in the direction of the arrows, and,

Figure 7 is a sectional view on line 7—7 of Figure 6, and viewed in the direction of the arrows.

Referring now to the drawings, there is shown in Figure 1 a long bow 8, of any desired or usual construction and material, and an arrow 9 fitted to the bow and ready to be shot.

A support bracket is carried by the bow 8, and comprises a central throat part 10 clamped to the bow 8 at its central or handle portion 11 by suitable means, as two cam clamps 12 and 13 operative, as shown clearly in Figure 4, to tighten bands 14 and 15 around the bow at its handle portion, and thus tightly clamp the support bracket to the bow.

At each end of the support bracket throat part 10 is an offset tubular lug or collar 16 and 17, shown as being formed integrally with throat 10, but which may, of course, be otherwise formed so long as they are fixed to or carried by the part 10, that is clamped to and carried by bow 8.

Received in each of the lugs or collars 16 and 17, in slidable relation thereto, is a rearwardly extending draw bar or rod 18 and 19, whereby the bow and its attached bracket can be slid back and forth on the rods, which, as shown, are parallel to each other.

To prevent the bow 8 and its attached bracket from sliding too far forward, and off the ends of rods 18 and 19, suitable means are provided to form stops, as shown at 20 and 21.

The lug 16 is furnished with latch means, for at times latching it to its rod 18, and thus preventing it from sliding on its rod in a rearward direction, i. e., in a direction away from the point of arrow 9. This latch means comprises an actuating arm 22, pivoted at 23 and biased to its holding position, as in Figure 3, by a leaf spring 24, whereby to hold a tumbler 25 in its raised position, in a slot 26 in rod 18, and thus prevent sliding of lug 16 and its attached parts on its rod 18. By manually raising the outer end of arm 22 against the bias of its spring 24, tumbler 25 drops out of its latching position and permits bodily sliding movement of the long bow 8 and the parts clamped thereto in a direction away from the point of arrow 9, as is obvious from an inspection of Figures 1, 2 and 3, and the foregoing description.

Carried by rods 18 and 19, and suitably spaced to the rear of the handle of the long bow, is a two part handle casing 27, clamped or fixed to the rods by any suitable means, as shown at 28 (Figure 6).

Within the handle casing is a trigger mechanism including a bent arm 29, pivoted at 30 with an operating end 31 biased by a leaf spring 32 to the holding position, as shown in Figure 6. The other end of arm 29 has a latch portion 33 for engaging an arm 34 of a firing device or string release finger, as shown in Figure 6.

A safety is provided for the trigger mechanism, in the form of a slidable stop pin 35 passing through casing 27 and through trigger arm 29, at a point spaced from the pivot 30. The stop pin 35 has an intermediate, reduced, throat portion formed therein as at 36, and a spring pressed ball detent means 37, cooperating with sockets 38 and 39, is provided, as best seen in Figure 7. Pin 35, slidable in the casing, can be positioned and held in either of two positions, i. e. in the position shown in Figure 7 where the safety is inoperative, and in the position where detent 37 is engaged in socket 39, when it is effective to prevent operation of trigger arm 29.

The firing device or finger referred to above comprises a forked member with a short forward arm 40, slotted as at 41, and the longer, rearward arm 34, as referred to above and cooperating with latch portion 33 of trigger arm 29. These two arms 34 and 40 are spaced from each other, so as to provide clearance for a usual bow string 42, as will appear as the description progresses and these arms are carried by a base 43 carried on a pivot 44, whereby these two arms and the carrying base can swing forward, from the position shown in Figure 7 in full line, to the position shown in dotted line, in Figure 7, when trigger arm 29 is operated to its dotted line position, as shown in Figure 6.

Handle casing 27 is vertically slotted as at 45, to readily receive the bow string 42, as clearly shown.

From the foregoing description, taken in connection with the accompanying drawings, the operation of this improvement should be readily understood.

As shown in Figure 1, the bow 8 is fully bent and is ready to be shot by operating the trigger arm end 31, to withdraw part 33 from arm 34 so as to allow the firing means to turn on its pivot 44, and permit the tensed bow

string to move forward out of its slot **45** and shoot the arrow. The arrow **9** is positioned at this time as shown in Figure 1, with its feather end passing through the slot **41** in arm **40** and bearing at its end against the tensed bow string **42**.

As will be noted from Figures 5 and 7 the latch portion **33** is formed with a slot **33'**, extending parallel to the guide rods to receive the bow string. When the latch portion is engaged with the arm **34**, the slot of the latch portion crosses the slot defined between arms 34, 40.

To re-bend the bow preparatory to launching another arrow, it is merely necessary to release the tumbler **25**, slide toward casing **27** the bow and its attached parts along rods **18** and **19**, insert the bow string into its slot **45**, and position it behind arm **40** by rocking arm **34** rearwardly until detent **33** snaps over it. The bow **8** and its connected parts are then slid forwardly on rods **18** and **19** until tumbler **25** snaps into place in slot **26**, when the bow is in condition to be shot once more.

The above rather specific description, of one form which this invention can assume, is given solely by way of example, and is not intended, in any manner, whatsoever, in a limiting sense. It is to be clearly understood that all such modifications, variations, and adaptations, of this invention, as fall within the scope of the appended claims, are intended to be covered by this disclosure.

Having described the invention it is now claimed:

1. An arrow shooting attachment for a long bow having a bow string, comprising a support bracket adapted to be fixedly connected to the bow and including a collar extending transversely of the bow; a draw bar mounted on the collar for longitudinal sliding movement; a handle at one end of the draw bar for slidably retracting the draw bar within the collar; means at said end of the draw bar releasably engageable with the bow string to tension the string on retraction of the draw bar; a manually operable trigger mechanism on the handle for disengaging said means from the bow string to release an arrow engaged with the string; and manually retractable latch means mounted on the bracket for movement between an extended, latching position and a retracted, unlatching position, the latch means in its latching position engaging the draw bar when the draw bar is retracted, to prevent relative sliding movement of the draw bar and collar in at least one direction.

2. An arrow shooting attachment for a long bow having a bow string, comprising a support bracket adapted to be fixedly connected to the bow and including a collar extending transversely of the bow; a draw bar mounted on the collar for longitudinal sliding movement; a handle at one end of the draw bar for slidably retracting the draw bar within the collar; means at said end of the draw bar releasably engageable with the bow string to tension the string on retraction of the draw bar; a manually operable trigger mechanism on the handle for disengaging said means from the bow string to release an arrow engaged with the string, the draw bar having a latching opening adjacent its other end; and manually retractable latch means mounted on the bracket for movement between an extended, latching position and a retracted, unlatching position, the latch means in its latching position engaging in the draw bar opening when the draw bar is retracted to prevent relative sliding movement of the draw bar and collar in at least one direction.

3. An arrow shooting attachment for a long bow having a bow string, comprising a support bracket adapted to be fixedly connected to the bow and including a collar extending transversely of the bow; a draw bar mounted on the collar for longitudinal sliding movement; a handle at one end of the draw bar for slidably retracting the draw bar within the collar; means at said end of the draw bar releasably engageable with the bow string to tension the string on retraction of the draw bar; a manually operable trigger mechanism on the handle for disengaging said means from the bow string to release an arrow engaged with the string, the draw bar having a latching opening adjacent its other end; and manually retractable latch means mounted on the bracket for movement between an extended, latching position and a retracted, unlatching position, the latch means in its latching position engaging in the draw bar opening when the draw bar is retracted to prevent relative sliding movement of the draw bar and collar in at least one direction, said latch means including an actuating arm pivoted on the support bracket under spring bias tending to swing the arm in one direction, said arm extending in position to be engaged and swung in an opposite direction by the finger of a hand grasping the bow, and a tumbler mounted in the collar for sliding movement transversely of the collar, said tumbler being engaged with and being shiftable by the arm into said opening of the draw bar on pivoting of the arm in said one direction under the spring bias thereof.

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