April 7, 1942. H. DOBSON 2,278,535

CROSSBOW

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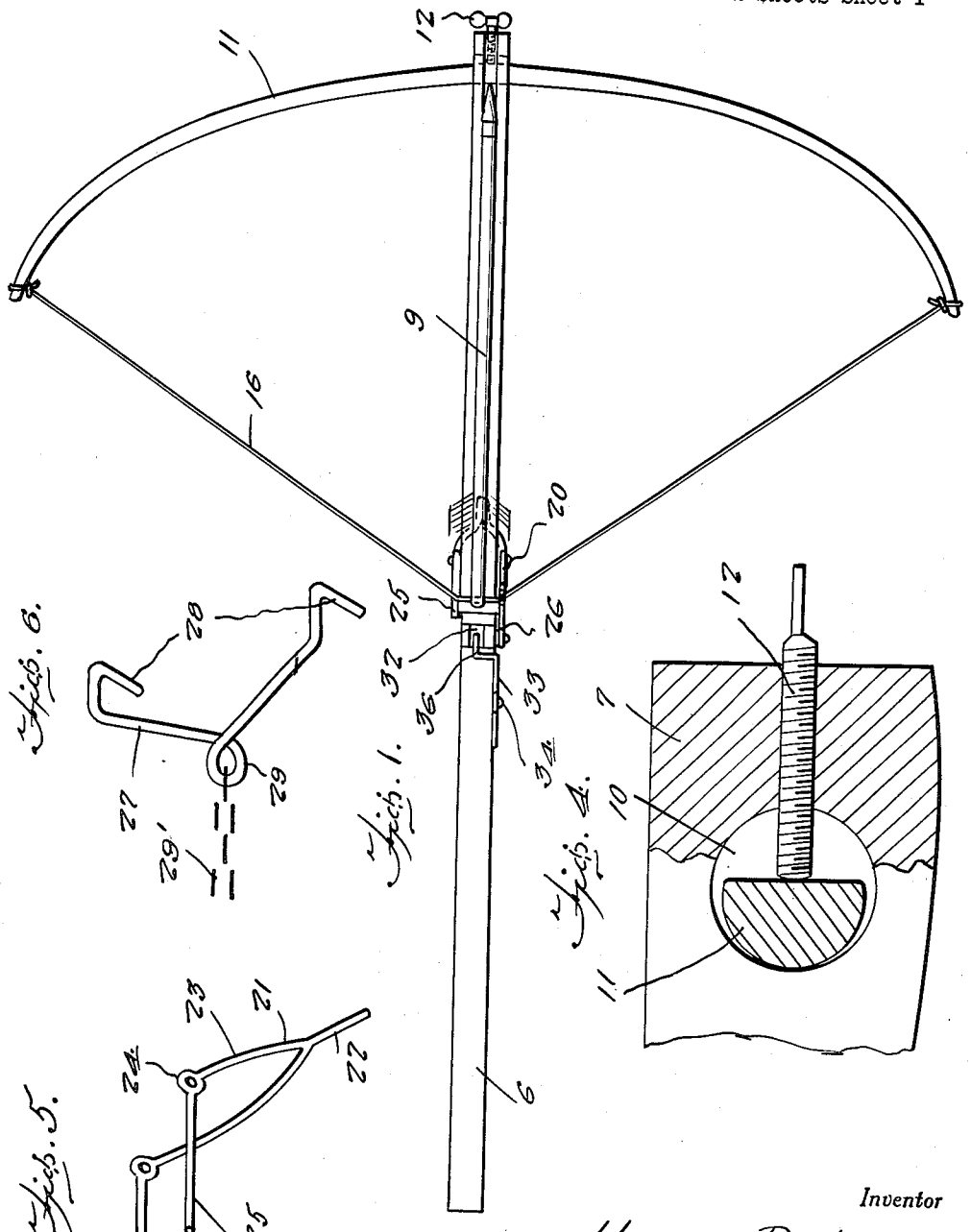


Fig. 1.

Fig. 6.

Fig. 4.

Fig. 5.

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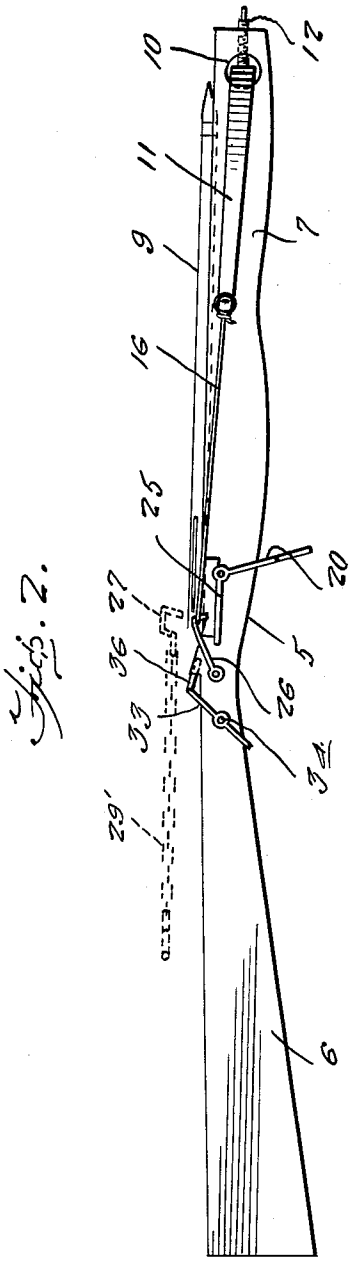


Fig. 2.

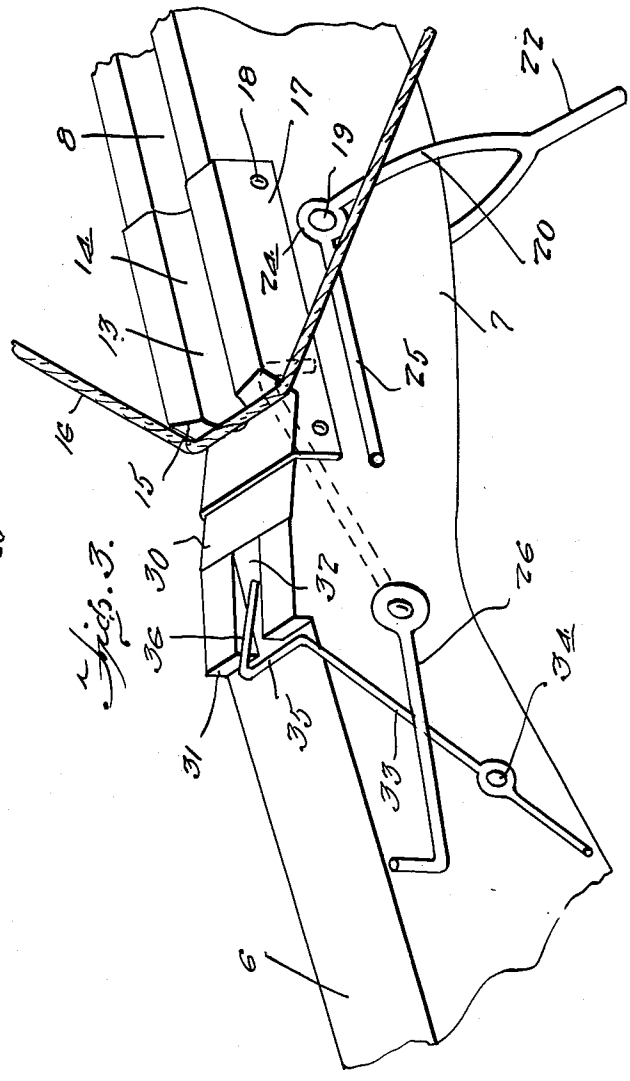


Fig. 3.

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Patented Apr. 7, 1942

2,278,535

UNITED STATES PATENT OFFICE

2,278,535

CROSSBOW

Henry Dobson, New Orleans, La.

Application November 28, 1940, Serial No. 367,642

2 Claims. (Cl. 124—25)

The present invention relates to new and useful improvements in crossbows and has for its primary object to provide a novel construction for securing the bow in position at the outer end of the guide for the arrow and also to provide a novel trigger construction for releasing the bow string when it is desired to shoot the arrow.

A still further object of the present invention is to provide a safety hook adapted for engaging the bow string to prevent accidental discharge of the arrow and also to provide an adjustable sight adapted to improve the accuracy of the weapon when shooting the arrow at various distances.

A still further object is to provide a device of this character of simple and practical construction, which is efficient and reliable in performance, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout and in which:

Figure 1 is a top plan view.

Figure 2 is a side elevational view.

Figure 3 is a fragmentary perspective view showing the arrangement of the trigger, safety hook and adjustable sight at the rear end of the arrow guide.

Figure 4 is a sectional view through the outer end of the arrow guide showing the set screw provided for securing the bow in position therein.

Figure 5 is a perspective view of the trigger and

Figure 6 is a similar view of the bow string setting hook.

Referring now to the drawings in detail wherein for the purpose of illustration I have disclosed a preferred embodiment of the invention the numeral 5 designates the crossbow generally which includes the stock 6 and the forwardly projecting arrow guide 7 which extends in a forwardly projecting position at the front end of the stock and is provided in its upper surface with the longitudinally extending groove 8 forming the guide for the arrow 9 when seated in the groove.

At the front end of the arrow guide is a transversely extending opening 10 through which the bow 11 is inserted and secured in position by means of a set screw 12.

The rear end of the arrow guide 8 is provided with a metal plate 13 likewise having the groove 14 therein in longitudinal alignment with the groove 8, the rear end of the arrow guide and the plate being formed with a transversely extending shoulder 15 adapted for engagement by the bow string 16 as shown to advantage in Fig. 3 of the drawings. The side edges of the plate 15 are provided with downturned flanges 17 engaging the opposite sides of the arrow guide 7 and secured thereto by means of screws or the like 18.

In the region of the shoulder 15 the arrow guide 7 is provided with a transversely extending pin 19 on which is pivotally mounted the trigger designated generally at 20. The trigger member includes a Y-shaped end portion 21 including the hand grip 22 and the fork members 23 which are disposed at opposite sides of the arrow guide 7, the ends of the fork members being provided with eyes 24 which are pivoted on the pin 19. Projecting rearwardly from each of the eyes 24 is a bow string releasing arm 25, the arms being positioned at opposite sides of the arrow guide and extending rearwardly with respect thereto in a position immediately beneath the bow string 16 as shown in Fig. 3 of the drawings.

From the foregoing it will be apparent that a rearward movement of the hand grip 22 will raise the arm 25 upwardly and release the bow string 16 from the shoulder 15.

Also pivoted to one side of the cross bow is a hook member 26 adapted for movement into a position for engaging the bow string 16 to secure the same against accidental displacement from the shoulder 15.

When it is desired to draw the bow string for engagement over the shoulders 15 a double hook member 27 is employed having spaced hooks 28 formed at one end thereof and having its intermediate portion formed with an eye 29 to which a full chain 29' is attached whereby to engage the bow string at spaced portions by the hook member 28 for drawing the same into position over the shoulder 15.

The upper edge of the cross bow immediately rearwardly of the shoulders 15 is inclined upwardly and rearwardly as shown at 30 to a point slightly above the horizontal plane of the upper edge of the arrow guide 8, the rear portion of the inclined section 30 terminating in an abrupt shoulder 31. A sight groove 32 is formed in the inclined section 30 in alignment with the arrow groove 8 and pivoted to one side of the stock 6 is an adjustable sight 33 in the form of a wire member pivoted intermediate its ends as at 34

and having one end bent inwardly over the upper edge of the stock as at **35** and provided with a forwardly extending extremity **36** adapted to lie in the sight groove **32**. The other end of the sight constitutes a handle for manipulating the sight in a manner to raise or lower the extremity **36**, the pivoted connection for the wire frictionally retaining the sight in adjusted position.

While the trigger is normally employed to release the bow-string from the shoulders **15**, the arms of the trigger also are adapted to engage and release the safety hook **26**.

It is believed the details of construction and manner of operation of the device will be readily understood from the foregoing without further detailed explanation.

What is claimed is:

1. A crossbow comprising an arrow guide having a groove in its upper surface adapted to receive an arrow, a shoulder at the rear end of the groove, a bow secured at the front end of the arrow guide, said bow including a bow-string adapted for engaging the shoulder when the bow-string is drawn, a safety hook engageable with the bow-string for releasably securing the latter from accidental releasing movement and a trigger adapted for releasing the bow-string.

2. A crossbow comprising an arrow guide having a groove in its upper surface adapted to receive an arrow, a shoulder at the rear end of the groove, a bow secured at the front end of the arrow guide, said bow including a bow-string adapted for engaging the shoulder when the bow-string is drawn, a safety hook engageable with the bow-string for releasably securing the latter from accidental releasing movement and a trigger adapted for engaging the hook for releasing the same from the bow-string and also adapted for releasing the bow-string from the shoulder.

HENRY DOBSON.