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AUTOMATIC SELF-LOCKING SWIVEL ARROW QUIVER

Filed Sept. 5, 1967

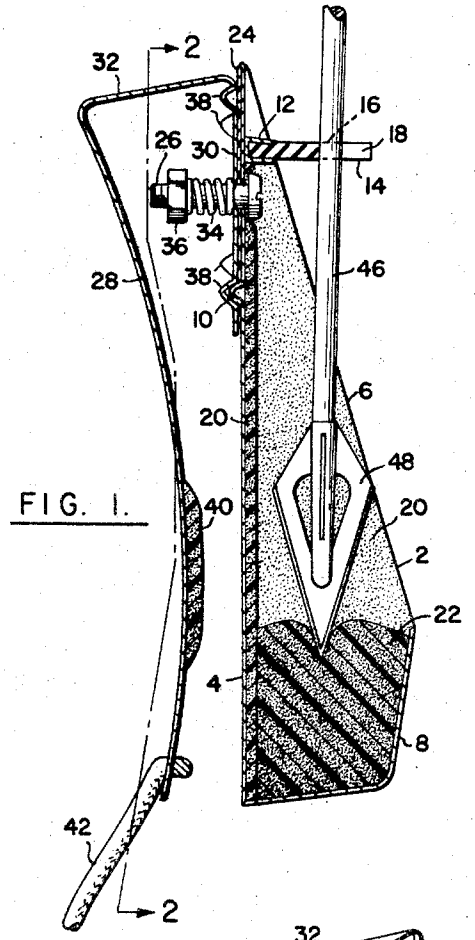


FIG. 1.

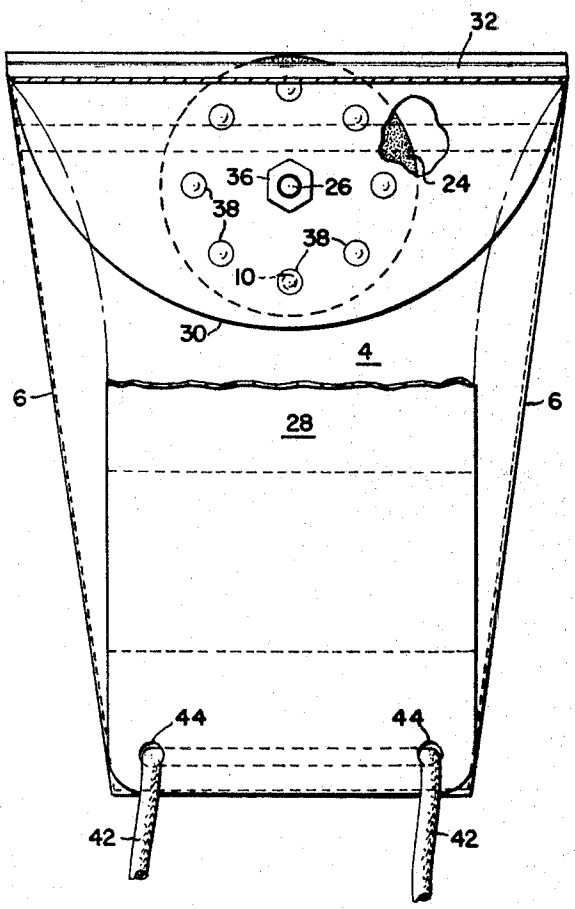


FIG. 2.

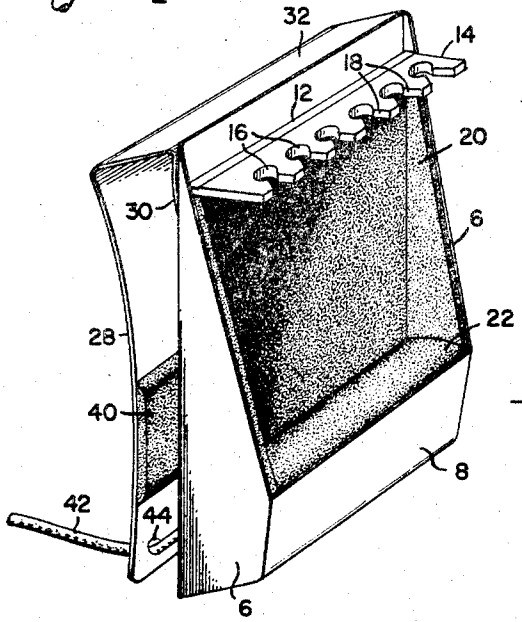


FIG. 3.

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AUTOMATIC SELF-LOCKING SWIVEL ARROW QUIVER

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ABSTRACT OF THE DISCLOSURE

A quiver for hunting arrows comprises a curved hip plate having a vertical depending portion on which is pivoted an arrow holder with a protective shield. The rear wall of the shield is provided with a dimple which engages a selected one of a plurality of dimples provided on the vertical portion depending from the hip plate so that arrows held in the quiver can be positioned in one of a number of selectable directions. A spring holds the dimples in engagement, and foamed plastic is provided for protection of the arrowheads and for silencing.

Background of the invention

This invention relates to quivers, and particularly to quivers of the hip mounted type suitable for use in carrying hunting arrows.

One of the difficulties encountered in the use of quivers both in hunting and in archery, is due to the fact that the lengths of the arrows are such that they are cumbersome to carry and are particularly likely to get in the way when the shooter is drawing his bow and when he is travelling through a wooded area. Another difficulty with the use of an ordinary quiver is that removal of arrows with a brisk motion can be somewhat dangerous, particularly to other persons.

Fixed quivers, holding arrows in the tilted position have been used, such as those illustrated in United States Patent 2,908,432, issued on Oct. 13, 1959, to R. R. Kent, however such quivers, when suitable for use by a right-handed person can be used only with great difficulty by a left-handed person. Consequently, left-handed and right-handed models have to be manufactured.

Summary of the invention

In accordance with the invention, a quiver is provided of the type which is worn on the hip, and consists of a hip plate worn over the belt, a cord tied around the leg, and a shielded arrow holder suspended from the hip plate and pivoted thereon. Detent means are provided so that the arrow container can be retained in the desired position of a number of selectable positions so that the shafts of the arrows can be positioned in such a way as to interfere minimally with the user's activities.

The arrow container is lined with foam plastic in order to protect the arrowheads and to prevent noise. Foam plastic is further provided between the hip plate and the arrow container at several points which would otherwise be likely to contact each other and cause noise, this being undesirable particularly in hunting.

Because arrows are held firmly in the quiver according to the invention, they may be positioned at any angle, and even upside-down, yet they may be removed comparatively safely, since removal may be effected by a very short lateral motion of the shaft rather than by a lengthwise motion.

A quiver in accordance with the invention can be used with equal facility by right-handed and left-handed persons.

The object of the invention, therefore, is to provide a quiver which combines the qualities of safety and noiselessness, and which is convenient to use. Other objects will be apparent from the following description read in conjunction with the accompanying drawings.

Brief description of the drawings

FIGURE 1 is a vertical section of a quiver in accordance with the invention showing pivoting and detent means, and showing the position of an arrow held in the quiver;

FIGURE 2 is a section taken on the surface indicated by 2—2 in FIGURE 1; and

FIGURE 3 is a perspective of the quiver.

Description of the preferred embodiment

Referring to FIGURES 1 and 2, a protective metal shield **2** is shown comprising a plate **4** having a pair of opposed sides **6** and provided with an L-shaped plate **8** to form a pocket. Sides **6** are narrowed at the upper end of plate **4**, and are widened at the lower end to form a wedge-shaped box with an open side.

Plate **4** is provided with a dimple **10** protruding from the rear of the box. Near the upper end of panel **4**, a U-channel **12** is fixed to panel **4**, and extends transversely between members **6**. A rubber arrow holder **14** is fastened in channel **12**, and is illustrated more clearly in FIGURE 3. Arrow holder **14** may be formed from rubber of one or more plies, and is provided with circular openings **16** having narrowing entrance slots **18**. The arc through which circular openings **16** are opened to entrance slots **18** is less than 180° of the circle of each opening so that arrow shafts can be retained. Narrowing slots **18** permit easy insertion of arrow shafts.

Returning to FIGURE 1, the walls of box **2** are lined with a sheet of resilient foamed material, for example styrene or rubber indicated at **20**, which is preferably secured by cementing to the walls. A comparatively thick piece of foamed material **22** is secured in the pocket provided by plate **8**. Lining **20** extends upwardly in the shield to the lower edge of channel **12**.

The rear of plate **4** is provided with a circular element **24** of foamed material, and dimple **10** extends through a hole in element **24**. A screw **26** extends through aligned holes in lining **20**, plate **4**, and element **24**.

A curved hip plate **28** is provided with an approximately semicircular flange **30** suspended downwardly from a connecting portion **32** adjacent plate **4**. Screw **26** passes through a hole in flange **30** and coil spring **34**, which surrounds screw **26** and one end of which abuts nut **36** maintains portion **30** in tight engagement with element **24**.

Flange **30** is provided with a plurality of dimples **38** symmetrically spaced in a circle about screw **26** at a distance from screw **26** equal to the distance between dimple **10** and screw **26**. The arrangement is such that a selected one of dimples **38** may be engaged by dimple **10** to prevent shield **2** from rotating.

A strip **40** of foamed material is provided along plate **28** at the position on plate **28** at which it most closely approaches plate **4**. A cord **42** adapted to be tied around the leg of the wearer passes through holes **44** in plates **28**.

An arrow including shaft **46** and hunting arrowhead **48** is shown in FIGURE 1. Shaft **46** is held in an opening **16** in holder **14**, and arrowhead **48** extends into foam plastic element **22**, which prevents the head of the arrow from moving laterally, and which protects the arrowhead and prevents it from contacting other arrowheads or the walls of shield **2**.

In order to use the quiver, the wearer passes his belt between plate **28** and the shield, so that portion **32** rests on the belt. Cord **42** is then tied around the leg in order to prevent plate **28** from rotating. Box **2** can be rotated

about screw **26** and positioned at any orientation in which dimple **10** engages one of dimples **38**. Disengagement of the dimples is permitted by spring **34**, this spring being further compressed during rotation of the box when the dimples are not engaged. Spring **34** acts to maintain the dimples in engagement so that box **2** is held firmly in the desired orientation. Because the desires of the users may differ, various orientations of the box may be used for the same type of activity. For example, for target shooting, the box may be positioned so that the arrowheads point directly upwardly or upwardly and backwardly, so that the arrows can be removed easily and so that they do not interfere with the bow. When walking through wooded areas however it may be desirable to position the box so that the arrows point in a forward direction so that the shafts do not snag branches.

The arrowheads are well shielded so that the user is well protected from injury which may be caused by hunting arrowheads, which are generally very sharp.

Because certain game, particularly deer, are frightened by slight noises, the rattling of metal parts against one another must be avoided. Because of the provision of elements **40** and **24**, noises, which would otherwise be caused by the contacting of plate **4** with plate **28** or flange **30** are prevented. The foamed lining in the box, and foamed element **22**, prevent noises caused by the contact between adjacent arrowheads and between arrowheads and the interior of the box.

Right and left-handed persons can use the quiver equally as well since it can be adjusted to corresponding position on either side of the vertical position.

Although the invention is particularly suited for use in conjunction with hunting arrows, it is adaptable as well to use with target arrows and other types of arrows, with or without modification.

I claim:

1. A quiver for arrows comprising a plate, means for removably securing arrows to said plate, a flange, means

for securing said flange to the person, and means securing said plate to said flange wherein the improvement comprises means pivoting said plate on said flange and permitting relative rotation between said plate and said flange about said pivoting means, means for retaining said plate in selectable positions with respect to said flange, the last-mentioned means including detent means disposed on said plate and radially removed by a distance from said pivoting means, means on said flange engageable in a plurality of said selectable positions with said detent means, spring means for maintaining said detent means in engagement with said means engageable with said detent means and permitting said detent means to be disengaged from said means engageable by said detent means by forcible rotation of said plate with respect to said flange, and soundproofing means disposed in a sheet between said plate and said flange about said pivoting means, said sheet having a minimum outer radial extent measured from said pivoting means at least as great as said distance.

2. A quiver according to claim **1** in which said soundproofing means is a resilient foam plastic material.

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