Nov. 8, 1955 R. C. KING ET AL 2,722,958

QUIVER

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Fig. 1.

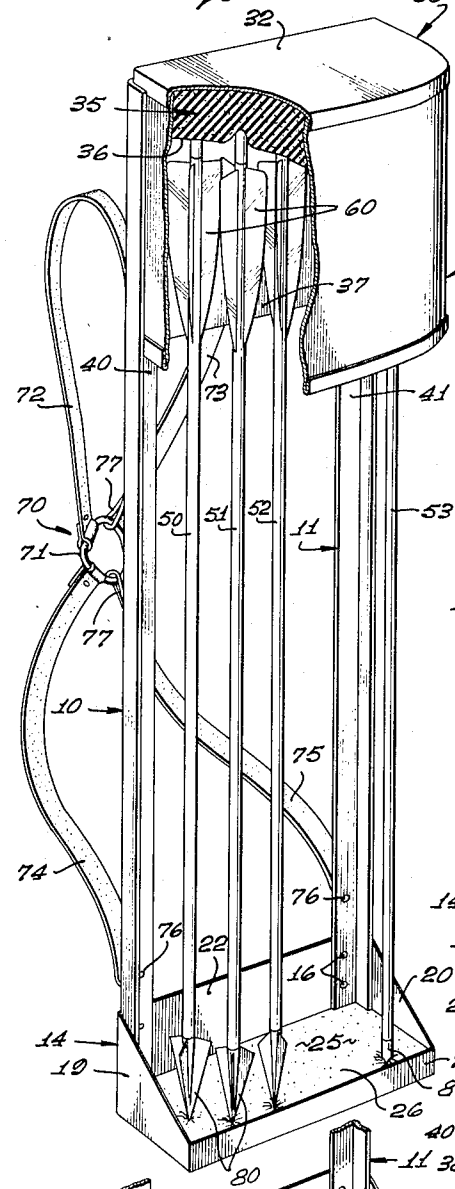


Fig. 2.

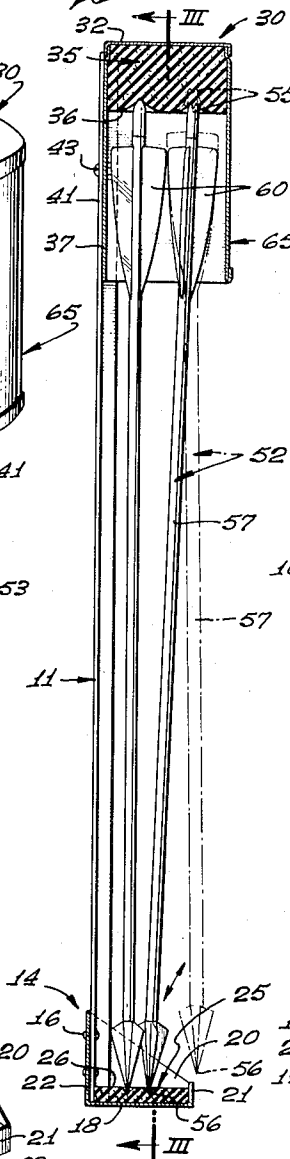


Fig. 3.

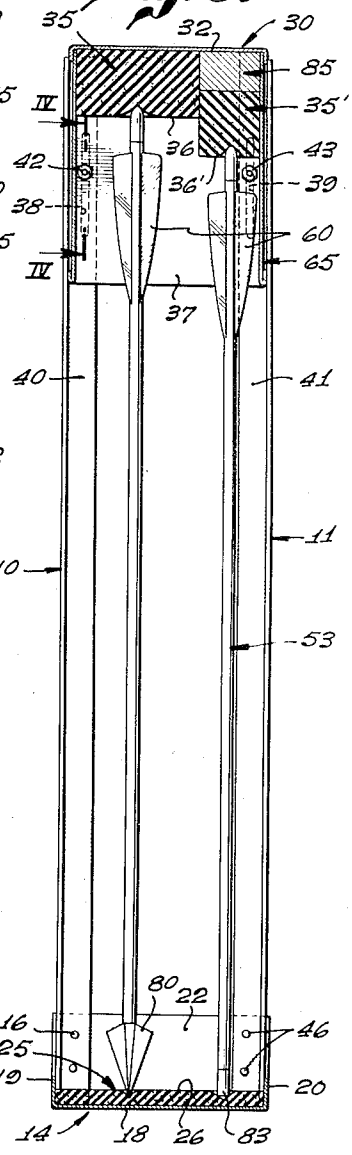


Fig. 4.

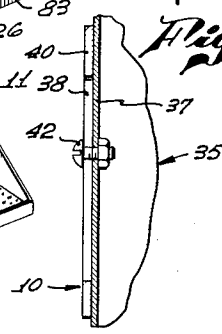
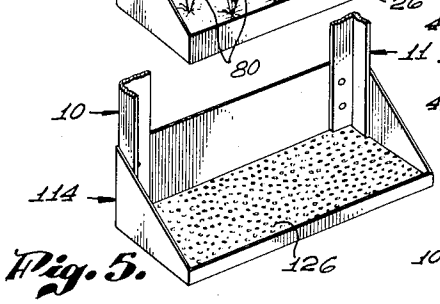


Fig. 5.



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QUIVER

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11 Claims. (Cl. 150—1.5)

This invention relates generally to a supporting carrier for elongated, rigid objects. More specifically, and in the preferred form hereinafter shown and described, the invention discloses a quiver to be worn on the back of the user and adapted to carry a plurality of easily removable arrows, each of the arrows carried being maintained in fixed relation to the carrier until individually manually removed therefrom.

The conventional quiver made of leather or the like has proved unsatisfactory in certain respects for the use of archers, especially in hunting game. Thus it is desirable that individual arrows carried in a quiver be held motionless relative to the quiver and to one another in order to prevent possible damage as to the feathers of the arrows as well as to prevent noisy rattling of the shafts of the arrows where stealth in stalking is necessary. Withdrawal of an arrow from a conventional back-mounted quiver involves an overhead movement of the arrow and the user's arm, which is likely to alarm the game. Moreover, certain body movements of the hunter using a conventional quiver may cause arrows to be dropped from the quiver as when a hunter climbs a fence, bends under an obstructing branch or otherwise reverses his normal upright orientation.

The present invention provides a solution to the above problems in the form of a longitudinally extending frame having at its lower end a platform or tray extending normal to the axis of the frame, and at the upper end a top member including an upper platform or bonnet similarly extending normal to the axis of the frame. The upper and lower platforms include opposed surfaces at least one of which is relatively resilient or yieldable, and an arrow or similar elongated rigid object may be firmly held between the two surfaces and may be easily and quickly removed from engagement with the quiver by the single hand of a user.

Desirably the upper platform or top is provided with fastening means connecting it to the longitudinal frame by which the spacing between the upper and lower platforms may be adjusted to suit whatever length arrow the user may wish to employ. Desirably also the upper platform or bonnet is provided with a suitable means for protecting the feathered ends of the arrows so that rain or foreign objects such as tree branches and the like will not harm the feathers of the arrows. In the preferred form of the present invention we provide means for carrying arrows of differing overall lengths so that minor variations in the type of arrowhead used may nevertheless be accommodated by the present carrier when such heads are attached to shafts of substantially equal length.

An object of the present invention is, therefore, to disclose a novel carrier for a plurality of elongated rigid objects including resilient means permitting easy removal of the selected object from the carrier.

Another object of the invention is to provide a carrier including resilient means for removably carrying a plurality of rigid, elongated objects wherein the objects,

once inserted into the carrier, are firmly held in spaced relation relative to one another.

A further object of the invention is to disclose apparatus of the above character adapted for use as a back-mounted quiver for carrying arrows and wherein arrows may be withdrawn downwardly and outwardly from the quiver.

A still further object of the invention is to disclose a device of the above characteristics including means fixed to the carrier for protecting the upper ends of the arrows or other elongated objects carried by the carrier from rain and from being struck by foreign objects.

Another object of the invention is to disclose a device of the above characteristics including means for adjusting its overall length whereby it may be adjusted to accommodate objects of any length within a wide range.

A further object is to disclose a back-mounted quiver of adjustable length including means for removably carrying a plurality of arrows in fixed relation to one another, such apparatus being rugged and dependable in use and comparatively inexpensive to manufacture.

These and other allied objects of the invention will become clear from a reading of the following description of preferred embodiments thereof, taken in connection with the accompanying drawing in which:

Fig. 1 is a perspective view of a back-mounted quiver embodying our invention showing four arrows mounted therein and with a portion of the protective hood and the upper resilient member broken away for clarity of illustration.

Fig. 2 is a vertical sectional view of the apparatus of Fig. 1 with the harness means omitted and showing two arrows in supported position, and in dotted outline, one of the arrows being inserted into or removed from the carrier.

Fig. 3 is a sectional view taken on line III—III of Fig. 2 showing two arrows of different overall lengths mounted on the carrier.

Fig. 4 is a fragmentary sectional view taken on line IV—IV of Fig. 3 and showing the details of a preferred length adjusting means for the carrier.

Fig. 5 is a fragmentary perspective view of the lower platform of a modified form of the invention wherein the upper surface of the lower platform is dimpled, roughened or otherwise provided with a multiplicity of small depressions for receiving the tip of an arrow.

Referring now in detail to the drawings, in Fig. 1 there is shown a carrier of our invention including a pair of longitudinally extending frame members generally indicated at 10 and 11 and in the present illustration being formed of L-shaped angle irons. At the lower ends of the frame members 10 and 11, there is provided a bottom member indicated generally at 14 and including a lower tray desirably made of metal and fixed to the frame members 10 and 11 by suitable means such as rivets 16. The tray 14 is provided with a flat bottom 18, upstanding side walls 19 and 20 and front and rear walls 21 and 22 respectively. Overlying the flat bottom 18 of the tray 14 there is provided a member indicated generally at 25 having a slightly resilient or depressible surface 26, the surface lying in a plane normal to the longitudinal frame members 10 and 11. The member 25 is fastened to the tray 14 by suitable means such as an adhesive, and the front wall 21 of the tray desirably extends slightly above the surface 26.

Connected to the upper end of the longitudinal frame members 10 and 11 there is a top indicated generally at 30 including a flat member or bonnet 32 lying in a plane transverse to the longitudinal axis of the carrier. A yieldable resilient member indicated generally at 35 is fixed to the lower surface of the flat bonnet 32 by

suitable means such as an adhesive. The resilient member **35** includes a downwardly facing yieldable surface **36** opposed to the upwardly facing surface **26** of the member **25**. Desirably the resilient member **35** may be made of sponge rubber or the like and in a preferred form of the invention may be one inch or more in thickness. Similarly, the lower resilient member **25** may be made of sponge rubber or similar material or alternatively, may be a piece of leather, thick fabric, a block of wood, or other material into which the tip of an arrowhead may penetrate slightly.

The top **30** includes a depending rear wall **37** by which the entire top is attached to the upper portion of the frame members **10** and **11**. We preferably form such attachment by means permitting adjustability of the overall length of the carrier, and preferred means for accomplishing this include longitudinally extending slots **38** and **39** (see Fig. 3) formed in the rear legs **40** and **41** of the frame members **10** and **11**. Suitable releasable fastening means **42** and **43** connect the rear wall **37** with the slots **38** and **39** so that the top may be adjusted to a selected position longitudinally of the frame members **10** and **11** and retained in such position by tightening the means **42** and **43**.

It will now be observed that the apparatus thus far described provides a resilient surface **36** and a second surface **26** parallel thereto and spaced therebelow by a selectively adjustable distance. Between these two parallel surfaces there may be carried a plurality of longitudinally extending objects such as the arrows **50**, **51**, **52** and **53** shown in Fig. 1. As best shown in Fig. 2, an arrow **52** is retained in the present carrier by inserting the rear tip **55** upwardly into the resilient member **35**. The arrow is manually forced upwardly until its points **56** is slightly above the upper edge of the front wall **21** of the lower tray **14**, whereupon the shaft **57** of the arrow may be moved leftwardly as shown in Fig. 2. Release of the arrow **52** will now cause the tip **56** to be forced downwardly by reason of the resilience of the member **35** so that the tip **56** is firmly driven into the member **25**. Thus the arrow is restrained at each of its ends against movement relative to the quiver. Removal of the arrow **52** from its mounted position in the carrier of our invention is accomplished by manually grasping the shaft **57** of the arrow, moving it slightly upwardly against the resilience of the member **35** and then moving the lower portion of the shaft outwardly away from the tray **14** until the tip **56** of the arrow clears the front wall **21** of the tray **14**. The arrow is then free to be wholly withdrawn downwardly and outwardly from the carrier.

In a preferred form of our invention we provide means carried by the bonnet **32** for protecting the upper ends of the arrows carried in the quiver, particularly the feathers **60**. In the present illustration such means include a peripheral hood indicated generally at **65** extending downwardly from the outer edge of the bonnet **32** to any desired distance so that the feathers **60** as well as the resilient member **35** are protected from rain and foreign objects.

The quiver of our invention is most conveniently carried upon the back of the user and to that end we provide harness means indicated generally at **70** and including a central ring **71**, left and right shoulder straps **72** and **73** respectively and left and right torso straps **74** and **75** connected to the ring, the straps being fixed at their ends to the frame members **10** and **11** by suitable means such as rivets **76**. Two of the strap members, as **73** and **75**, may be removably connectable to the central ring **71** by suitable spring-biased, releasable hook means **77** so that the entire device may be quickly fastened on the user's back with the ring **71** disposed approximately centrally of the user's chest. When so worn, the user can easily insert arrows into the carrier or remove one or more therefrom by the use of one hand.

The present invention is adapted to receive and retain arrows of slightly different overall lengths. In the present illustration, for example, the arrows **50**, **51** and **52** are of substantially equal length, their front ends including broadheads **80**. A hunter may wish to carry several arrows fitting the same bow but provided with heads of different lengths. One of such arrows is indicated generally at **53** (see Fig. 3) and includes a short, relatively flat head **83**. In order to accommodate the shorter arrow **53**, we may provide in one portion of the top **30** a spacer block indicated generally at **85** fixed to the top **30** as by adhesive. A resilient member **35'** is fastened to the lower surface of the block **85** by suitable adhesive means and thus presents a downwardly facing yieldable surface **36'** to resiliently receive the rear end of the shorter arrow **53**. It will be understood that one or more arrows of the shorter length similar to arrow **53** may be inserted into, retained by and removed from the right hand portion of the carrier as seen in Fig. 3 in the same fashion and with the same facility as hereinabove described in connection with Fig. 2 and the arrow **52** there shown.

Because of the sharpness of the tips of the broadhead arrows **50**, **51** and **52**, the lower resilient member **25** may, after repeated use, become torn and have to be replaced. In order to obviate this, we may in some instances provide a lower member including a tray **114** whose upper surface **126** (see Fig. 5) is pebbled, dimpled, or otherwise roughened to provide a multiplicity of small depressions. It will be understood that a tip of an arrow pressed upon such surface by the resilience of the upper resilient member is restrained from movement on the tray when received in one of the depressions of surface **126**.

We are aware that modifications and changes from the specific forms of the invention hereinabove shown and described will occur to those skilled in the art. All such modifications and changes not departing from the spirit of the invention are intended to be embraced within the scope of the appended claims.

We claim:

1. A carrier for removably holding elongated rigid objects of predetermined length including: a longitudinally extending frame; and means connected to the frame and spaced longitudinally thereof presenting opposed parallel imperforate, facing surfaces, at least one of said surfaces being yieldable in a direction longitudinally of the frame, said surfaces being normally spaced apart a distance slightly less than the predetermined length.

2. The invention as stated in claim 1 including a rigid, peripheral hood carried by the means presenting a yieldable surface, said hood extending parallel to the frame toward the other surface.

3. The invention as stated in claim 2 wherein the other surface is yieldable.

4. The invention as stated in claim 2 wherein the other surface is roughened to provide a multiplicity of depressions thereon.

5. The invention as stated in claim 1 wherein one of said means is connected to the frame by means permitting selective adjustment of the spacing between said surfaces.

6. A carrier for removably carrying a plurality of elongated rigid objects including: an elongated vertical frame; a base member connected to the frame including means extending normal to the longitudinal axis of the frame provided with an upwardly facing horizontal surface; a top member connected to the frame spaced above the base member including resilient means having a downwardly facing yieldable surface parallel to said upwardly facing surface and opposed to a portion thereof and a second downwardly facing yieldable surface vertically spaced from the first named downwardly facing surface and opposed to the remaining portion of said upwardly facing surface.

7. The invention as stated in claim 6 wherein the base

member means comprises an element having a yieldable upper surface.

8. The invention as stated in claim 6 wherein the base member means comprises an element having a roughened upper surface with a multiplicity of small depressions formed therein.

9. A carrier for supporting a plurality of parallel extending rigid elongated objects comprising: a frame including longitudinally extending frame members; a base connected to the lower end of the frame including an imperforate, upwardly facing platform extending normal to the frame members; and a top connected to the upper end of the frame including a bonnet and a resilient member fixed thereto, the lower surface of the resilient member being virtually parallel and opposed to said platform.

10. The invention as stated in claim 9 wherein the base

includes a flat member mounted upon said platform and provided with a yieldable upper surface spaced from and parallel to said lower surface.

11. The invention as stated in claim 9 wherein the upper surface of said platform is roughened to provide a multiplicity of depressions therein.

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