Sept. 12, 1967 R. J. SMITH ETAL 3,340,828

PORTABLE SEAT

Filed March 1, 1966

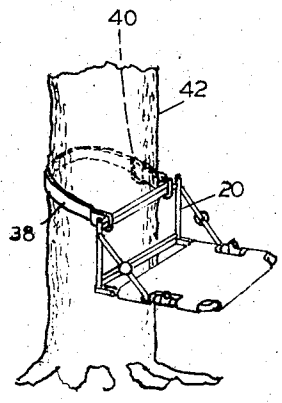


FIG 1

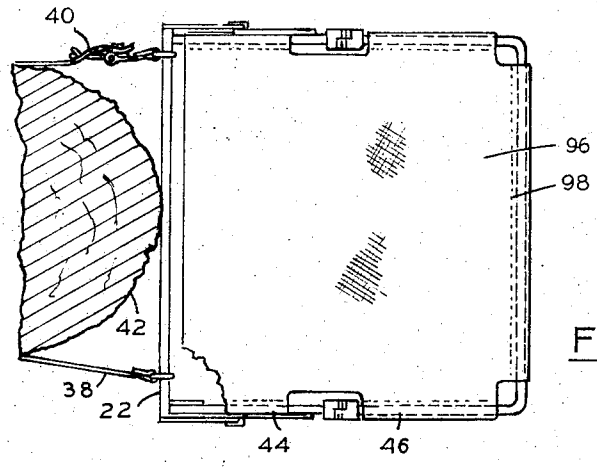


FIG. 2

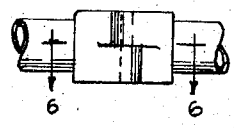


FIG.5

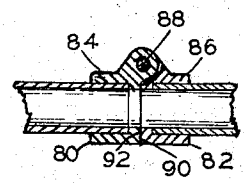


FIG.6

FIG. 3

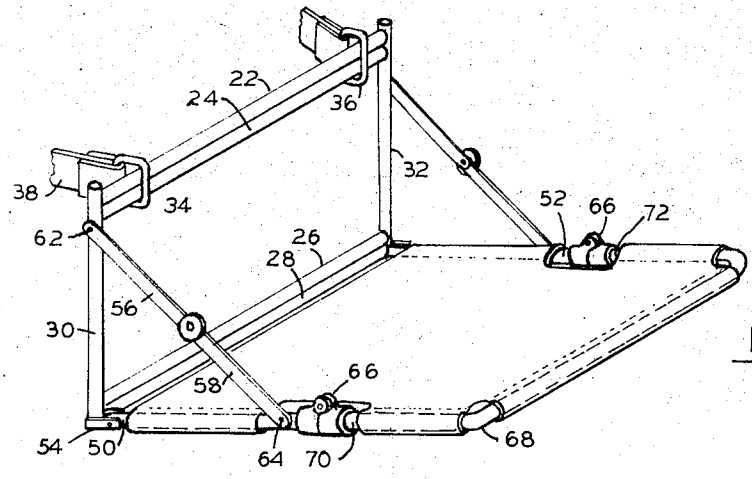


FIG. 4

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PORTABLE SEAT

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This invention relates to folding seats, and more particularly to a seat for hunters, campers and the like adapted to be supported from a tree or other upstanding support.

In hunting, involving considerable trecking through the open country and woods, it is desirable from time to time to have a seat from which one can rest and quietly await the approach of game. A seat for such purpose must be light and have as little bulk as possible during transport. On the other hand it must have adequate strength. The present invention is directed toward a seat that is readily folded to a compact size, and adapted to be supported from a tree or like upstanding object, whereby legs are eliminated, as well as the problem of finding even ground as is necessary for the usual seat with legs. The invention comprises a relatively low seat back adapted to be supported from a tree or the like, and a seat foldably supported from the back and foldable on itself, whereby the entire seat presents relatively little bulk and weight, when folded for transport. The invention further has to do with a folding seat structure that is quickly made ready and quickly mounted upon a tree or the like for support without injury thereto, and is quickly removed and folded. The mounting of the seat upon a tree or the like requires a single strap adapted to be drawn taut as a sling and buckled, following which weight upon the seat enhances the supporting grip of the strap.

The above and other novel features of the invention will appear more fully hereinafter from the following detailed description when taken in conjunction with the accompanying drawings. It is expressly understood that the drawings are employed for purposes of illustration only and are not designed as a definition of the limits of the invention, reference being had for this purpose to the appended claims.

In the drawings wherein like reference numerals indicate like parts:

FIGURE 1 is a perspective view of the seat in position for use;

FIGURE 2 is a plan view of the seat;

FIGURE 3 is a side elevation of the seat;

FIGURE 4 is an enlarged perspective view of the seat;

FIGURE 5 is a plan view of the seat pivot means; and

FIGURE 6 is a section taken on the line 5—5 of FIGURE 5.

Referring to the drawings, there is shown a seat having a back frame **20**, comprised of a pair of upper relatively rigid tubular bars **22** and **24**, and lower rigid tubular bars **26** and **28**, tied together by side members **30** and **32**. Disposed on the upper bars **22** and **24** are rectangular rings **34** and **36** to which a heavy flexible strap **38** is secured, the strap having a buckle **40**. In practice the back frame is adapted to be secured by the strap to any upstanding object such as a tree **42**, of any suitable size.

Pivotally connected to the frame **20** adjacent the lower ends of the side members **30** and **32** is a seat frame comprising two parts **44** and **46**, hinged together for folding. The rear portion **44**, comprises rear members **50** and **52** pivoted to the back frame, as in U-members **54**. The rear members are provided with braces comprising diagonal links **56** and **58** pivoted together as at **60**, and pivotally attached to the back frame and rear members as at **62** and **64**.

The two parts **44** and **46** of the seat frame are pivoted together as at **66**, and the forward frame may comprise a tubular U-member **68**, having side portions **70** and **72**. The pivotal means for securing the seat parts **44** and **46** may comprise elements **80** and **82** adapted to receive the rear members **50** and **52**, and side portions **70** and **72**, the elements being pivoted by offset lugs, **84** and **86**, provided with a heavy pivot pin **88** disposed just above the elements **80** and **82**. The pivotal means readily permits the seat parts **44** and **46** to be folded to the position indicated at **44'** and **46'** as indicated in FIGURE 3. The heel portions **90** and **92** of the elements **80** and **82** are adapted to limit the pivotal movement, so that the seat parts, when unfolded, lie in a common plane, with the side portions aligned, and the forward part **46** supported as a cantilever from the rear part **44**.

Any suitable flexible fabric **96** may be applied to the seat parts **44** and **46**, and the same may be looped about the rear members **50** and **52** and the U-member **68**, and stitched or otherwise secured as at **98**, if desired.

As indicated in FIGURE 3, the seat folds to a handy size for ease of carrying. At the same time, it is quickly opened, and as quickly strapped to a tree or other object. The bars **22** and **24** permit the rings to be slid to accommodate different size tree trunks, and once the strap is drawn taut around a tree, weight on the seat tends to further tension the strap by slight downward movement, as is indicated in FIGURE 3 wherein thes trap is shown as having been drawn taut by being inclined to the horizontal by reason of the seat having been moved downwardly slightly. Thus a single strap, and smooth but rigid upper and lower bars **22** and **24** and **26** and **28** bearing against the supporting object serve to support the seat under any normal weight. Since no barbs or other tree or support damaging edges or spikes are employed, the seat is as readily removed by first lifting the seat upwardly if desired, after which the strip is unbuckled, or the strap can be unbuckled without resort to upward movemove of the seat.

The sliding rings permit the strap to form a sling around the tree, with the strap ends disposed at substantially right angles to the bars **22** and **24**, for any size tree trunk of a diameter up to the length of the bars **22** and **24**. When the tree trunk diameter exceeds the length of the bars **22** and **24**, the sling and its rings merely bear against the frame side members **30** and **32**, so that the length of the strap is the only limiting factor in determining the range of tree trunk sizes to which the seat may be applied. It will be appreciated that the various parts will be made as light as practicable, as by employing tubular section, or the equivalent. It will also appear that the back members are required to be of sufficient stiffness to resist bending, against any weight which may be applied to the seat. While duplicate tubular pairs **22** and **24**, and **26** and **28** are shown, and have been determined as effective, such upper and lower members may be of such cross-section and such material as will retain stiffness under the bending loads to which they are subjected.

A single strap, and the avoidance of projections, teeth, or other similar elements on the back frame **20**, which would prevent slight downward movement of the seat, when the strap is slung around the tree results in a grip that is sufficient to support the seat, since slight downward movement draws the strap taut to provide a non-slip grip.

While a single form and a variation of the invention has been illustrated and described, it is to be understood that the invention is not limited thereto. As various changes in the construction and arrangements may be made without departing from the spirit of the invention, as will be apparent to those skilled in the art, reference

will be had to the appended claims for a definition of the limits of the invention.

What is claimed is:

1. A seat adapted for support from a tree or the like, comprising a back frame having upper and lower spaced transverse rigid bars and vertical side frame members, said lower bar being adapted to bear against a tree trunk at approximately seat height, and said upper bar being of substantially uniform section and having a pair of rings freely slidable along the length thereof, and a strap including a buckle having its ends secured to said rings, said strap being adapted to extend around an upstanding support object such as a tree, a seat frame having side members pivotally attached to the lower ends of said side frame members, flexible links connecting the upper ends of said side frame members with the seat side members, and a foldable seat cover slung from said seat frame.

2. A seat in accordance with claim 1 wherein said seat side members are formed of two sections of substantially like length, and provided with pivotal means for joining said sections, having an off center pivotal axis disposed above said members and lying in a plane transverse of said members, said pivotal means comprising two members affixed respectively to the two sections of the seat side members, and having abutting heel portions when the two sections of the side members are in alignment, whereby the forward sections may abut in alignment with the rearward sections to provide a seat, or be folded back over the rearward sections, and the forward and rearward sections folded against the back frame, for compact transport.

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