

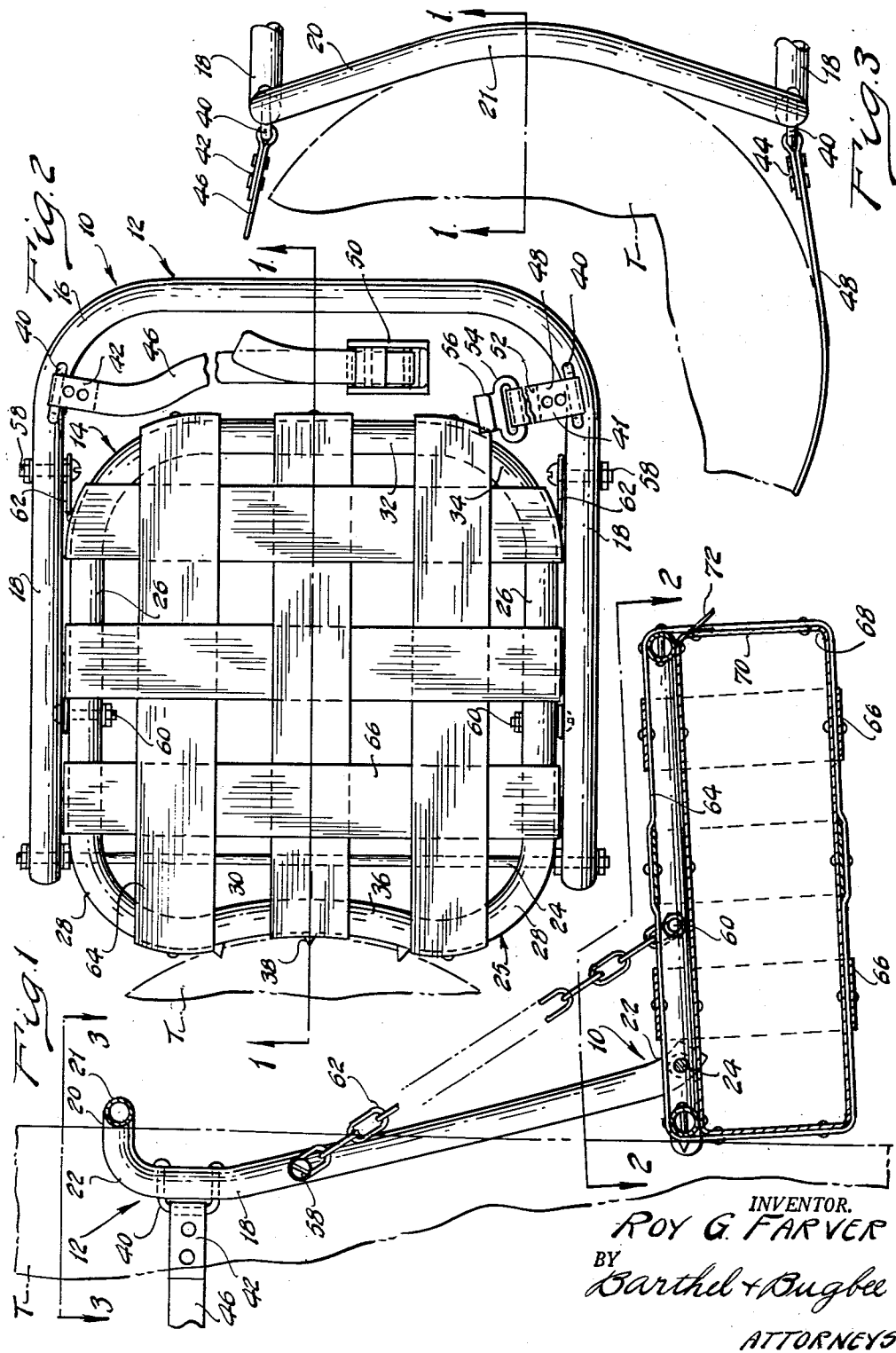
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TREE-ATTACHED FOLDING SEAT

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1

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TREE-ATTACHED FOLDING SEAT

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1 Claim. (Cl. 182—187)

This invention relates to seats and, in particular, to tree-attached folding seats for hunters and other sportsmen.

One object of this invention is to provide a folding seat adapted to be quickly and easily attached to a tree and firmly held by the tree so as to provide a seat for a hunter or other sportsman which is comfortable and durable.

Another object is to provide a tree-attached folding seat of the foregoing character wherein the seat bottom folds flat against the seat back so as to produce a package or bundle of exceptional thinness for storage, packing or carrying.

Another object is to provide a tree-attached folding seat of the foregoing character wherein the seat bottom and seat back are formed from hollow tubing which gives exceptional strength accompanied by lightness of weight as well as freedom from corners or edges which would otherwise cause discomfort to the user.

Another object is to provide a tree-attached folding seat of the foregoing character wherein the seat back is secured at a high location to the tree by an elongated flexible member, such as a strap, cable or chain, thereby, in effect, suspending the seat from the tree trunk and consequently preventing slippage by reason of the fact that the weight of the user upon the seat automatically applies a clamping effect relatively to the tree trunk which pulls the seat back more firmly against the tree trunk with increasing angle of obliquity between the strap or other flexible member and the adjacent transverse plane of the tree trunk.

Another object is to provide a tree-attached folding seat as set forth in the object immediately preceding, wherein the top portion of the seat back and the rearward end of the seat bottom are of arcuate shape so as to approximately fit the curvature of the tree trunk.

Another object is to provide a tree-attached folding seat of the foregoing character wherein the seat bottom is provided with a haversack-like receptacle which is adapted to contain ammunition, food or other hunters' equipment, and optionally even a seat heater for use in cold weather.

Other objects and advantages of the invention will become apparent during the course of the following description of the accompanying drawings, wherein:

FIGURE 1 is a central vertical longitudinal section through a tree-attached folding seat, according to one form of the invention, taken along the line 1—1 in FIGURE 2;

FIGURE 2 is a horizontal section taken along the line 2—2 in FIGURE 1, but with the seat back folded down into a position adjacent the plane of the seat bottom, in order to disclose the invention more clearly but with the flexible diagonal tension brace chains omitted to avoid concealing structure beneath them; and

FIGURE 3 is a fragmentary top plan view taken along the line 3—3 in FIGURE 1, showing the means of attachment of the seat to a tree.

Referring to the drawing in detail, FIGURE 1 shows a tree-attached folding seat, generally designated 10, according to one form of the invention as secured in position against an approximately cylindrical tree trunk T in an unfolded position ready for use by a hunter or other outdoorsman. FIGURE 2 shows the seat 10 with its back 12 folded downward into a plane approximately parallel with and adjacent to the plane of the seat bottom 14 for clarity of illustration, it being understood that in

2

the normal use of the invention the seat back 12 is folded upward into a position perpendicular to the plane of the drawing paper as shown in FIGURES 1 and 3.

The seat back 12 consists of an inverted U-shaped back frame 16 of hollow metal tubing, such as aluminum, having parallel side arms 18 interconnected by a bridge portion 20 with an arcuate central portion 21 adapted to approximately fit the cylindrical curvature of the tree trunk T and extend partway around it. This construction locates the curved junctions or corners 22 partway backward from the front edge of the tree trunk (FIGURE 1), the approximately vertical side members 18 of the seat back frame 16 being curved forwardly at their lower end portions 22 and drilled to receive a pivot rod 24. The pivot rod 24 passes through the similarly drilled rearward portion of the parallel side members 26 (FIGURE 2) of the approximately rectangular open-centered bottom frame 25 of the seat 14 at locations adjacent the curved corner junctions 28 between its side members 26 and its rear member 30. The seat bottom frame 25 has a front member 32 having curved corners 34 joining it to the side members 26. The rear seat bottom frame member 30 has a central concave arcuate portion 36 adapted to fit a cylindrical surface approximating the shape of a tree trunk of average size. Sharp points 38 may optionally be mounted on the rearward arcuate portion 36 to bite into the tree trunk T and further assist in preventing slippage.

The side members 18 of the seat back frame 16 are drilled to receive U members 40, the front ends of which are upset rivet-like to prevent withdrawal. Secured to the U members 40 are the riveted anchor loops 42 and 44 of the elongated flexible member sections 46 and 48 respectively of an elongated flexible attachment device, generally designated 41 (FIGURE 2). The outer end portion of one flexible member section 46 is threaded through a buckle 50, while the other strap section 48 terminates in an outer riveted loop 52 passing through the slotted base 54 of a hook 56 engageable with the buckle 50. The buckle 50 is preferably of the adjustable aircraft safety seat belt type of conventional construction, with details well known to those skilled in the seat safety belt art and beyond the scope of the present invention. In order to hold the seat back 12 and bottom 14 in their open positions (FIGURE 1), approximately at right angles to one another, the side members 18 and 26 are drilled at locations remote from one another to receive upper and lower anchor fasteners 58 and 60 respectively which serve to anchor the upper and lower ends of flexible diagonal tension brace members 62, such as chains or straps which extend obliquely between the frames 16 and 25 and collapse to facilitate folding when the tension is removed from them.

The frame 25 of the seat bottom 14 is provided with any suitable supporting structure such as the interlaced crossed straps 64 and 66 arranged in approximately rectangular open-centered paths with their upper portions respectively riveted or otherwise tautly secured to the members 26, 30 and 32 of the seat bottom frame 25 and their remaining portions depending therefrom. In order to provide carrying and storage capacity for ammunition, food or other equipment, the seat 14 is also optionally equipped with a haversack-like receptacle or bag 68 suspended from the seat bottom frame 25 by being inserted within the open-centers of the rectangularly-arranged straps 64 and 66. The receptacle or bag 68 is preferably of canvas or other suitable material, whereas the straps 46, 48, 64 and 66 are preferably of textile webbing, thereby combining strength and flexibility with lightness. The front wall 70 of the receptacle 68 is preferably slotted to receive a conventional slide fastener 72, whereby access is obtained to the interior of the bag 68.

While being stored or transported, the folding seat 10 is arranged with its back 12 folded parallel to its bottom

3

14 around the pivot rod 24 while the flexible diagonal braces 62 collapse into convenient loops or coils, as shown in FIGURE 2. In this position, the seat 10 occupies the minimum space in the automobile in which it is carried to the hunting grounds. When the hunter has reached his destination he may, if he prefers, carry the folded seat on his back like a haversack with the front wall 70 and slide fastener 72 uppermost.

Upon reaching the desired location for hunting, the user unfolds the seat 10 from the folded position of FIGURE 2 to the unfolded position of FIGURE 1, wherein the back and seat 12 and 14 are disposed approximately at right angles to one another with the flexible diagonal braces 62 stretched taut. The user then passes the flexible member sections or strap sections 46 and 48 rearwardly around a selected tree trunk T of diameter approximating the curvatures of the arcuate portions 21 and 26 of the seat back and bottom 12 and 14 respectively, with these arcuate portions resting against the tree trunk, adjusts the buckle 50 to the most suitable position along the strap section 46, and hooks the hook 56 into the buckle 50 when the strap sections 46 and 48 tightly encircle the tree trunk T. When the user sits down upon the seat bottom 14, his weight sets up a force from the bellcrank action of the seat bottom 14 and back 12, forcing the arcuate portions 21 and 36 firmly against the tree trunk T. After the hunter has finished hunting at the selected location, he detaches the hook 56 from the buckle 50 and folds the seat back 12 and bottom 14 together in the manner shown in FIGURE 2, whereupon he is ready to carry it to another location.

What I claim is:

A folding seat adapted to be attached to the trunk of

4

a tree, comprising a seat bottom structure, an upstanding seat back structure, a pivot member pivotally connecting the rearward portion of said seat bottom structure to the lower portion of said seat back structure for effecting unfolding of said structures from an approximately coplanar closed position to an approximately mutually perpendicular open position, foldable diagonal brace members secured at their opposite ends to said structures at locations spaced apart from said pivot member and extending between said structures at oblique angles thereto, and means connected to the upper portion of said seat back structure for securing said seat back structure to the tree trunk, said seat back structure including an open-centered substantially rigid frame of approximately inverted U-shaped form with a substantially rigid top bridge member and downwardly-extending side members depending therefrom in laterally-spaced approximately parallel relationship, the seat back structure on the rearward side thereof having a centrally-disposed substantially rigid concave portion adapted to matingly engage the tree trunk.

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