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PORTABLE TREE SEAT

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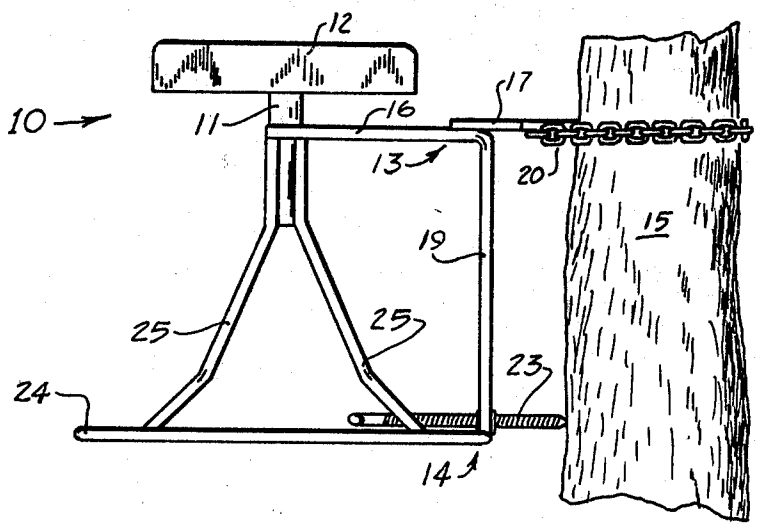


Fig. 1

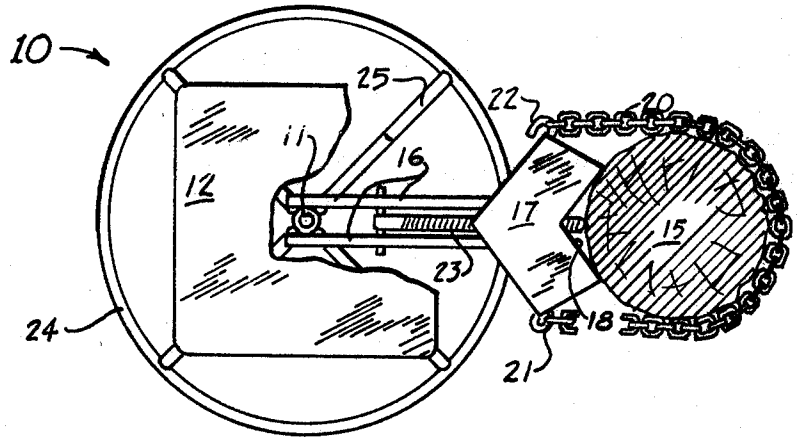


Fig. 2

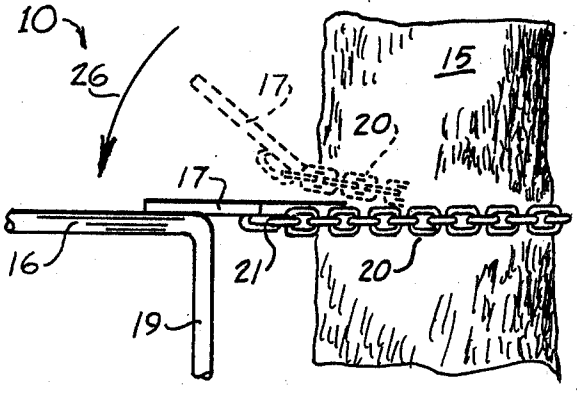


Fig. 3

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PORTABLE TREE SEAT

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ABSTRACT OF THE DISCLOSURE

As one example of the invention disclosed herein, easily-transportable seating apparatus is provided with an outstanding horizontal plate having its forward edge adapted for engagement against one side of an upright tree or wooden post. A relatively-unstretchable cable or chain of sufficient length to encircle average-sized trees or posts is releasably secured to the rigid plate and at some distance to the rear of its forward edge. In this manner, by snugly encircling a wooden support with the chain while the seating apparatus is temporarily tilted upwardly, downward pivotal movement of the seating apparatus in relation to the wooden support will be effective to further tighten the flexible member so as to drive the forward edge of the plate against the support for reliably securing the seating apparatus in a generally horizontal position thereon.

It is fairly common for hunters to construct permanent platforms or so-called "stands" in trees and the like as convenient places for hiding within shooting range of areas believed to be frequented by game animals. As will be appreciated, the construction of such platforms is best done well before the hunting season to avoid frightening away wild game. On the other hand, where such prior construction is not feasible, many hunters resort to light-weight seats adapted to be temporarily secured in a selected tree. Although many seats of this nature have been proposed heretofore, no seat has yet been devised that can be quickly but reliably secured to even inclined trees as well as being of a convenient size and weight for easy transportation.

Accordingly, it is an object of the present invention to provide light-weight, portable seating apparatus that can be quickly, but still unfailingly, secured to trees and other wooden upright supports irrespective of either their size or the inclination of those that might reasonably be selected.

This and other objects of the present invention are attained by providing seating apparatus having an outstanding, generally horizontal, support-engaging member with a bifurcated forward end that is spatially disposed above a second outstanding support-engaging member. A flexible, but relatively unstretchable, support-encircling member is adapted for connection to the upper support-engaging member and at a distance to the rear of its bifurcated forward end. In this manner, once the seating apparatus is elevated to a desired position on the trunk of a tree, for example, the rear of the apparatus is tilted in relation to the tree so as to incline the upper support-engaging member downwardly with its bifurcated forward end engaged with one side of the tree. Then, after the intermediate portion of the flexible member has been looped fairly tightly around the tree and its end portions secured, the rear of the seating apparatus is lowered to bring the upper support-engaging member into a generally horizontal position and, in so doing, further tighten the flexible member so that it will cooperate with the forward ends of the support-engaging members to positively secure the seating apparatus to the tree. By pivotally mounting the seat and including a footrest on the lower support-engaging member, a hunter will be given added freedom of movement while safely seated thereon.

The novel features of the present invention are set forth with particularity in the appended claims. The present invention, both as to its organization and manner of operation together with further objects and advantages thereof, may best be understood by way of illustration and example of a certain embodiment as illustrated in the accompanying drawings, in which:

FIGURE 1 is an elevational view of a preferred embodiment of seating apparatus incorporating the principles of the present invention;

FIGURE 2 is a plan view of the apparatus shown in FIGURE 1; and

FIGURE 3 illustrates a portion of the apparatus as it is being secured in position on an upright wooden support.

Turning now to FIGURES 1 and 2, seating apparatus **10** arranged in accordance with the present invention is shown. In its preferred form, the seating apparatus **10** includes a centrally-located post or upright **11** carrying a seat **12** and outwardly-extending upper and lower rigid members **13** and **14** having their respective forward ends in generally vertical alignment with one another and adapted for cooperative engagement with one side of a tree, as at **15**, or other wooden upright support. To minimize the overall weight of the seating apparatus **10**, the intermediate portion of the upper support-engaging member **13** is formed from rigid light-weight members, such as a pair of paralleled rods or tubes **16**, carrying on their outer ends a flat rigid plate **17** of steel or such with a widely-diverging notch **18** in its forward edge. To further insure the rigidity of the upper support-engaging member **13**, one or more depending braces **19** are extended to the lower support-engaging member **14** therebelow. In any event, it is essential to the present invention only that the upper and lower support-engaging members **13** and **14** be rigidly interconnected to one another as well as to the remainder of the seating apparatus **10**.

The terminal portions of a generally unstretchable, but fairly flexible, member such as a cable or a chain **20** are adapted for connection to the support-engaging plate **17** and, for reasons that will subsequently become apparent, at a significant distance to the rear of the notch **18** therein. Although the chain **20** can be secured to a single point midway in the plate **17**, greater stability against sidewise tipping is obtained by connecting the ends of the chain on opposite sides of the plate. Both ends of the chain can, of course, be releasably connected to the plate **17**; but, to prevent loss of the chain, it is best permanently connected at one end, as by an eyebolt or fixed ring **21**, along one side of the plate and releasably secured at its other end to an open ring **22** on the opposite side of the plate. In this manner, after the chain **20** is encircled around the tree **15**, its effective length can be conveniently adjusted by hooking the best-suited link over the open ring **22**.

In its preferred form, the lower support-engaging member **14** is arranged to be selectively adjustable over a limited range. To accomplish this, an elongated screw **23** is threadingly coupled to the lower member **14** and adapted for horizontal translation between an extended and a retracted position. In this manner, the forward end of the screw **23** can be selectively positioned to so engage even an inclined support that the seat **12** will be generally horizontal. For purposes of further safety, a generally horizontal, and preferably circular, footrest **24** is arranged at a convenient elevation below the seat **12** and dependently supported from the central post **11** by a plurality of struts **25**.

Turning now to FIGURE 3, a partial view is shown of the support-engaging plate **17** and the chain **20** to illus-

trate the initial and final positions of these members as the seating apparatus **10** is being secured to the tree **15**. As shown in the phantom-lined portion of the figure, the seating apparatus **10** is initially tilted upwardly in relation to the tree **15** with the notch **18** in the plate **17** against a selected side of the tree. Then, as shown by the arrow **26**, once the chain **20** has snugly encircled the tree **15** and its free end is safely hooked into the open ring **22**, the rear of the seating apparatus **10** is moved downwardly. It will be appreciated, therefore, that the downward movement of the seating apparatus **10** will be effective to further tighten the chain **20** as the rings **21** and **22** move in a generally arcuate path further away from the face of the tree trunk **15**. In this manner, movement of the seating apparatus **10** into the full-lined position will insure that the chain **20** and support-engaging members **13** and **14** cooperate to so tightly secure the seating apparatus in the tree **15** that the seating apparatus cannot be loosened or even shift under any reasonably anticipated load while in use.

It will be understood, of course, that the spacing of the rings **21** and **22** from the forward edge of the support-engaging plate **17** determines how tightly the chain **20** will be drawn as the seating apparatus **10** is moved into its seating position. The most-effective "toggling" action provided by the cooperative relation of the connecting rings **21** and **22** to the forward edge of the plate **17** is, of course, realized where the center of the chain **20** on the backside of the tree **15** is just below or about on the plane defined by the support-engaging plate in its final position. In this manner, when the seating apparatus **10** is moved downwardly, the chain **20** will be tightened; and then, when the plate **17** is horizontal, the chain will be pulling along a plane lying slightly below the points where the forward edge of the plate **17** contacts the tree **15**. Thus, the chain **20** will still be in its further-tightened state and will now oppose upward movement of the rear of the seating apparatus **10**. This will, of course, positively immobilize the seating apparatus **10** to provide complete stability of the apparatus. Moreover, the added weight of a hunter on the seat **12** will tend only to further tighten the chain **20**. It will be appreciated, therefore, that the lower support-engaging member **14** and the lateral screw **23** prevent the seating apparatus **10** from moving so far downwardly that the rings **21** and **22** are again so close to the tree **15** as to loosen the chain **20**.

In practice, it has been found that the chain **20** as well as the notched edge of the support-engaging plate **17** will tend to be embedded into the bark of the tree **15**. If this is not accomplished, it is, of course, quite simple to restore the seating apparatus **10** to its initial inclined position and slip another link of the chain **20** over the open ring **22** as required to have the seat **12** fairly horizontal when the chain is fully tightened. The lateral screw **23** is, however, useful for insuring that the seat **12** comes to rest in a horizontal position even where the tree **15** is inclined from the vertical.

Once the chain **20** and adjusting screw **23** have been appropriately arranged, it will be recognized that by virtue of the notch **18**, the support-engaging plate **17** will be contacting the tree **15** at at least two horizontally-spaced points along the forward edge of the plate. Simultaneously, the single point of contact made by the forward end of the adjusting screw **23** suffices to prevent the seat **12** from tipping further downwardly. Thus, with the contact of the plate **17** preventing sidewise tilting of the seating apparatus **10** as well, cooperative action of the chain **20** and plate will be pulling these three points of the contact against the tree **15** to securely fix the seating apparatus to the tree.

Since the seat **12** is preferably pivotally mounted on the central post **11**, a hunter seated thereon can easily traverse his body about the pivotal mount. Moreover, in view of the footrest **24**, safe support is given to the feet of the hunter so that he will feel secure in his perch and be able to devote his full attention to his hunting activities.

While a particular embodiment of the present invention has been shown and described, it is apparent that changes and modifications may be made without departing from this invention in its broader aspects; and, therefore, the aim in the appended claims is to cover all such changes and modifications as fall within the true spirit and scope of the invention.

What is claimed is:

1. Seating apparatus adapted for mounting on an upright wooden support and comprising: upper and lower rigid members respectively extending along vertically aligned and spaced upper and lower lateral axes; bracing means rigidly interconnecting said upper and lower rigid members to one another; upper support-engaging means on the forward end of said upper rigid member and having a bifurcated forward edge defining a horizontal fulcrum surface transverse to said upper lateral axis adapted to engage a first surface along one side of such a support; lower support-engaging means on the forward end of said lower rigid member and adapted to engage a second surface along one side of such a support and below such a first surface thereof; a seat pivotally mounted on the rearward end of said upper rigid member; a footrest mounted around the rearward end of said lower rigid member and below said seat; and means for securely coupling said seating apparatus to such a support including a flexible and relatively unstretchable member adapted to extend around the opposite side of such a support and having end portions, first connecting means secured to an intermediate portion of said upper rigid member between said fulcrum surface and said seat and dividing said upper rigid member into rearward and forward portions, and second connecting means on said flexible-member end-portions adapted for coupling to said first connecting means when said seating apparatus is inclined downwardly with said fulcrum surface of said upper support-engaging means against such a first surface on one side of such a support and said flexible member is snugly extended around the opposite side thereof so that a downward force on said rearward portion of said upper rigid member will be effective to further tighten said flexible member as said seating apparatus is pivoted about said fulcrum surface to carry said first connecting means further away from such a support and bring said lower support-engaging member also into engagement with such a second surface thereon.

2. The seating appaartus of claim **1** wherein said flexible member includes a plurality of interconnected chain links providing said second connecting means, and said first connecting means are first and second hooks secured to said upper rigid member on opposite sides of said upper lateral axis and respectively adapted for coupling to selected ones of said chain links.

3. The seating apparatus of claim **1** wherein said lower support-engaging means include: an adjusting screw threadingly coupled to said lower rigid member and adapted for translation along a lateral axis to position said lower rigid member in relation to an upright wooden support and said upper rigid member as required to orient said seat in a desired position.

References Cited

UNITED STATES PATENTS

1,206,574	11/1916	Miller	182—187
1,993,320	3/1935	Dozier	182—187
2,074,586	3/1937	Heinrich	182—187
3,065,821	11/1962	Hundley	182—187
3,358,789	12/1967	Laun	182—187
3,368,725	2/1968	Martin	182—187
3,392,802	7/1968	Moore	182—187
3,396,818	8/1968	Moragne	182—187

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