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(54) **FOLDING LEG SUPPORT ASSEMBLY FOR A HUNTER'S TREESTAND**

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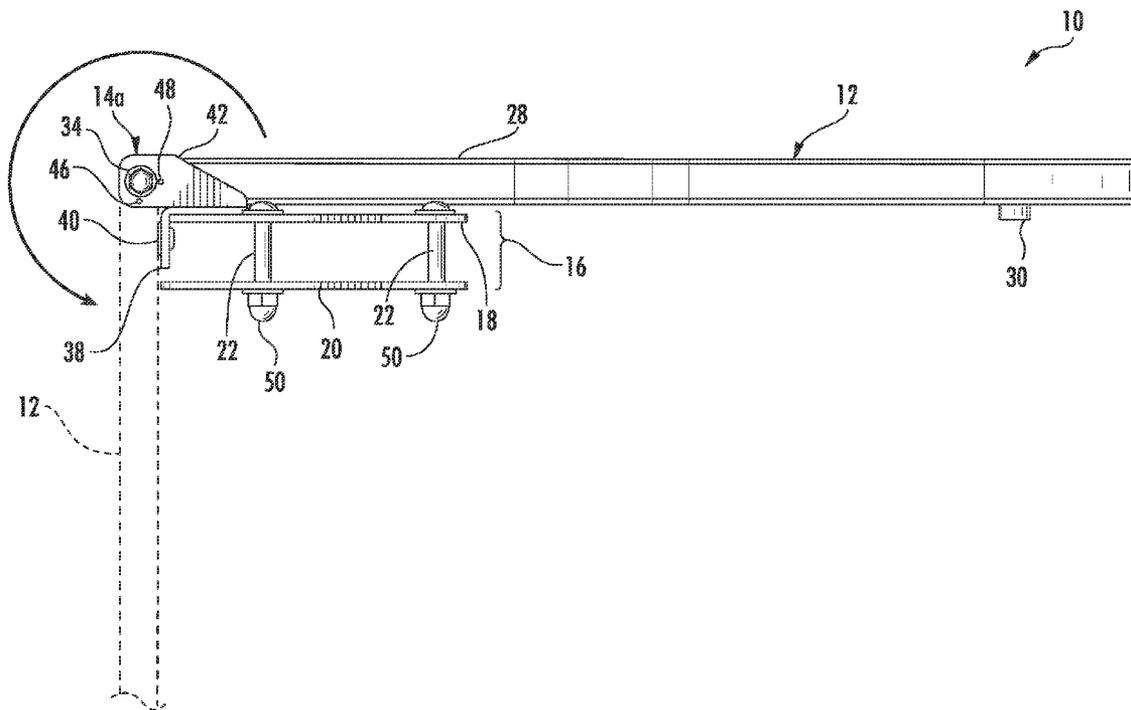
(57) **ABSTRACT**

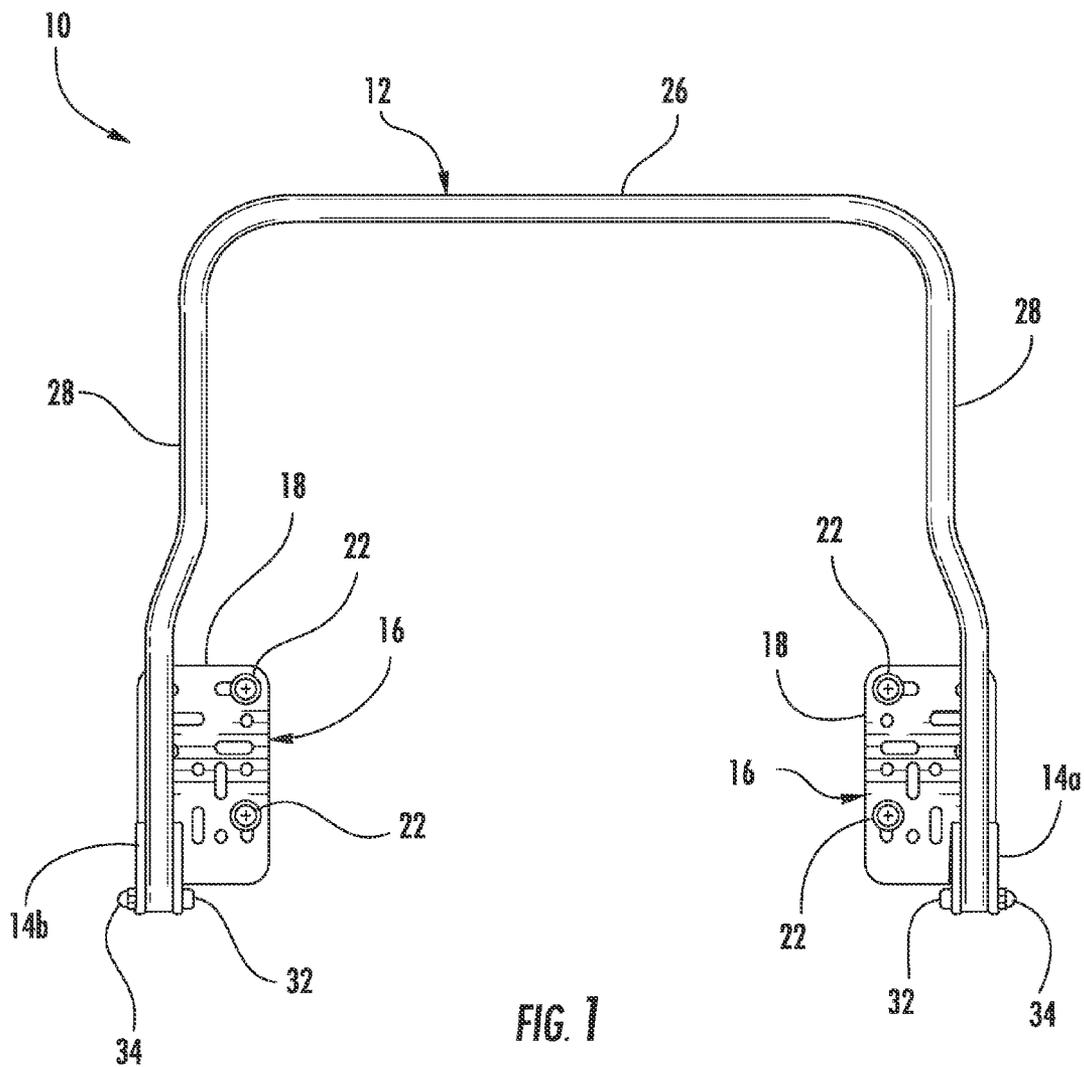
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A folding leg support assembly for a hunter's treestand is disclosed. The assembly includes a bracket adapted for mounting to a platform and a leg support connected to the bracket. The leg support is movable about the bracket between an open deployed position and a folded stowed position.

Related U.S. Application Data

(63) Continuation-in-part of application No. 12/251,011, filed on Oct. 14, 2008.





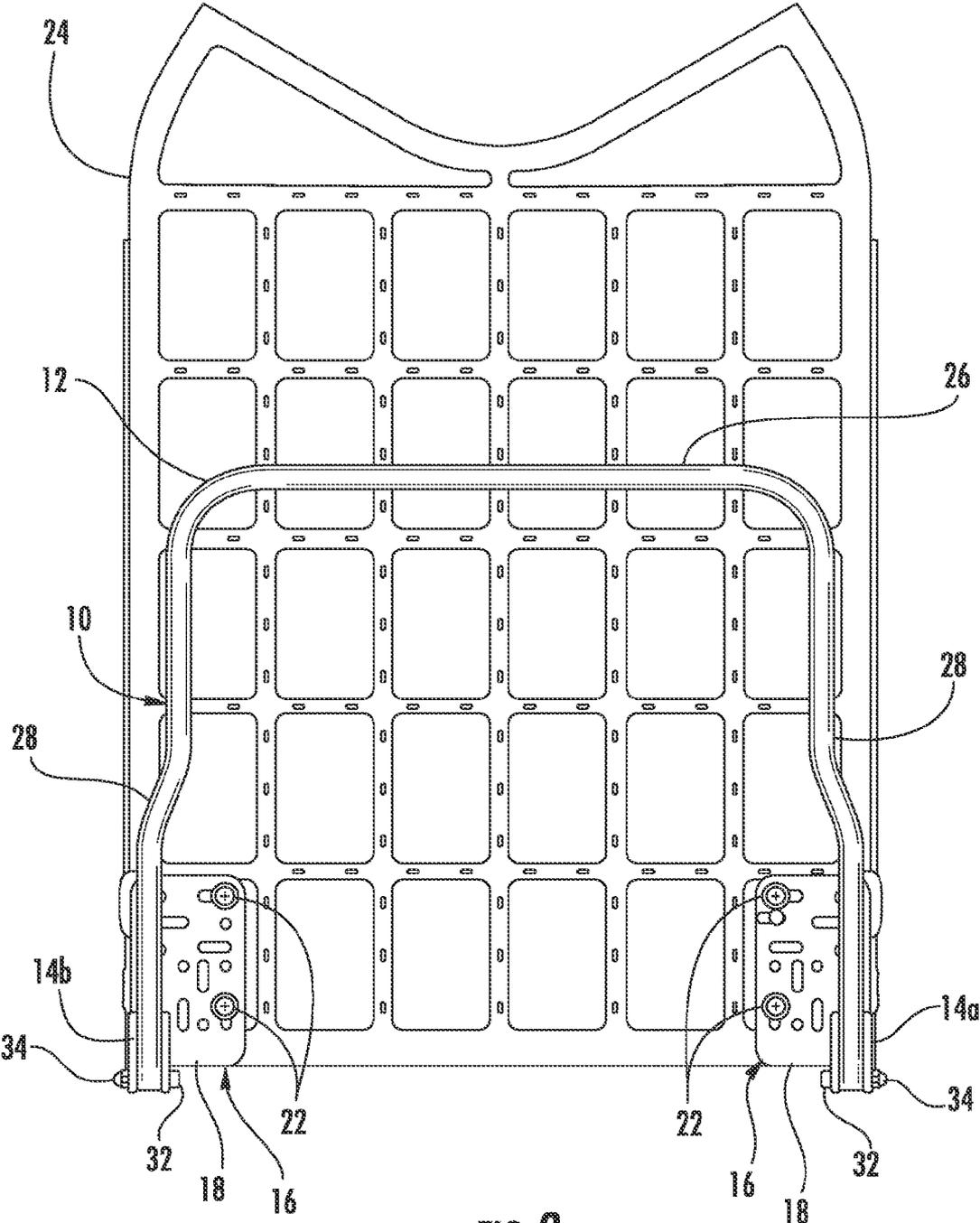


FIG. 2

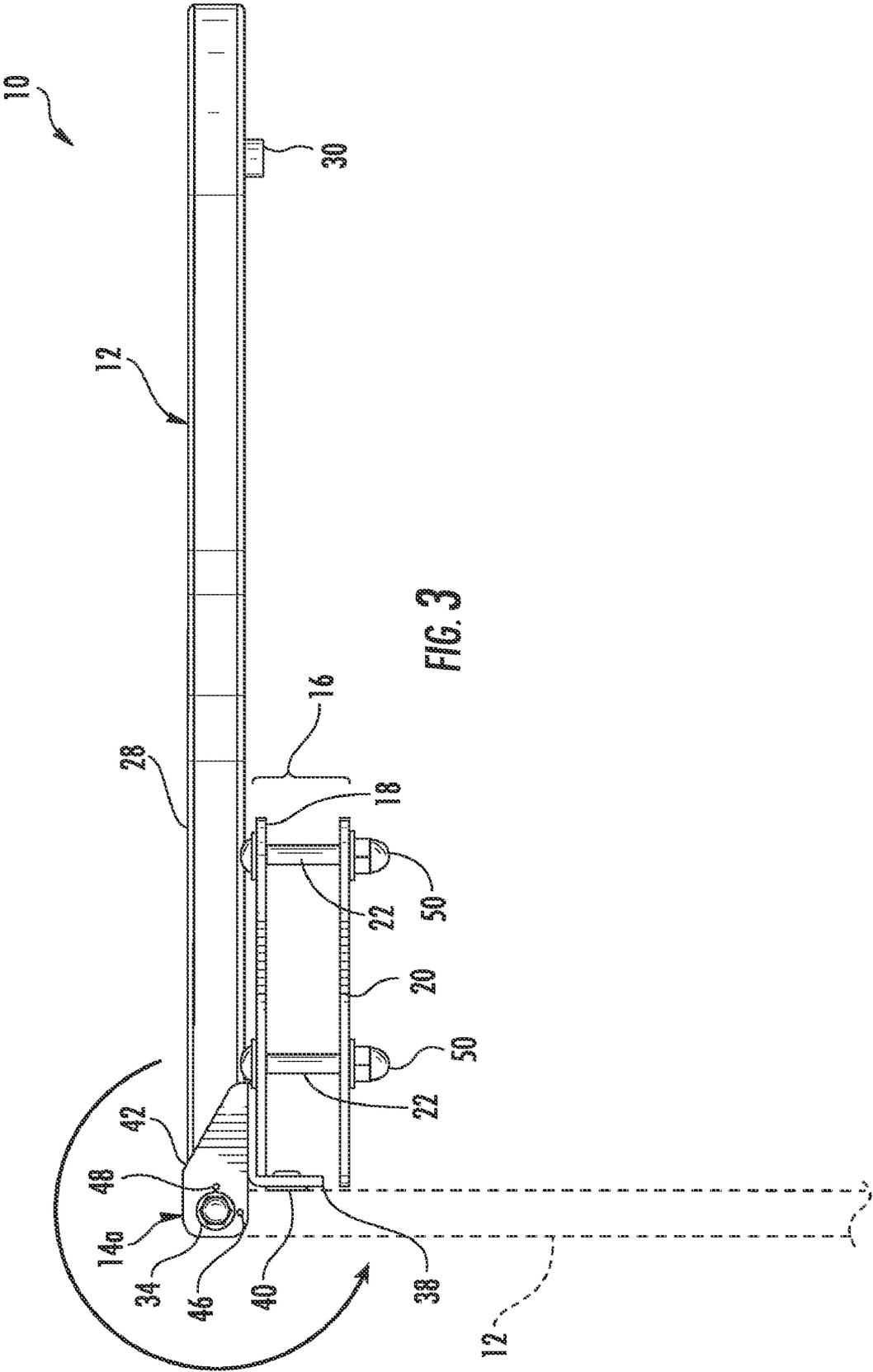


FIG. 3

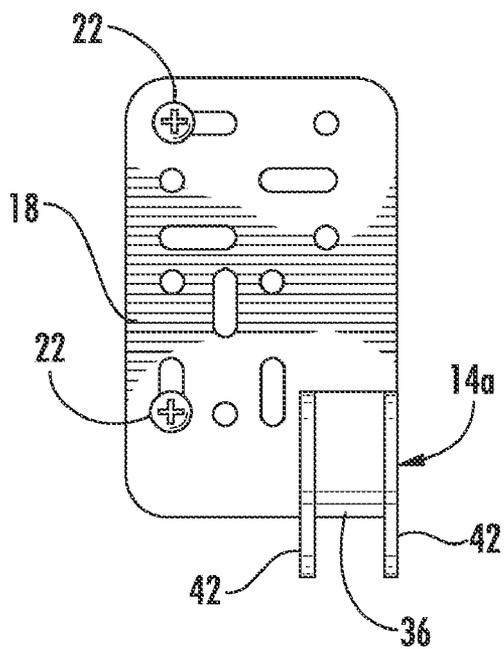


FIG. 4A

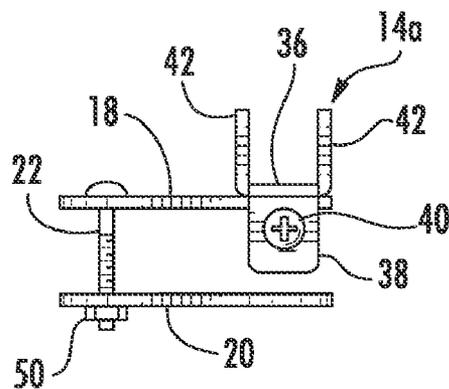


FIG. 4B

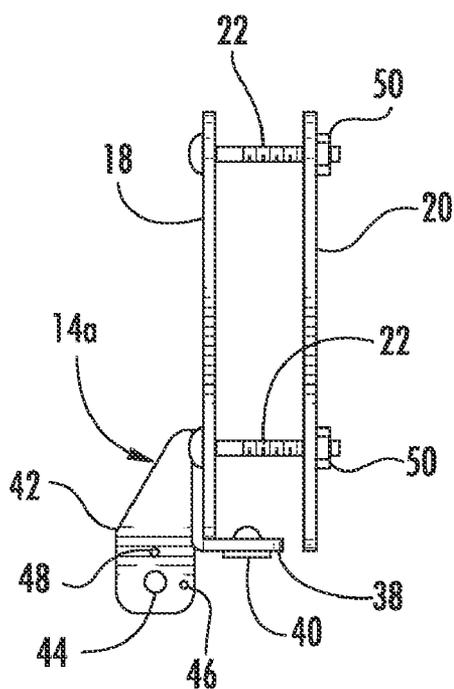


FIG. 4C

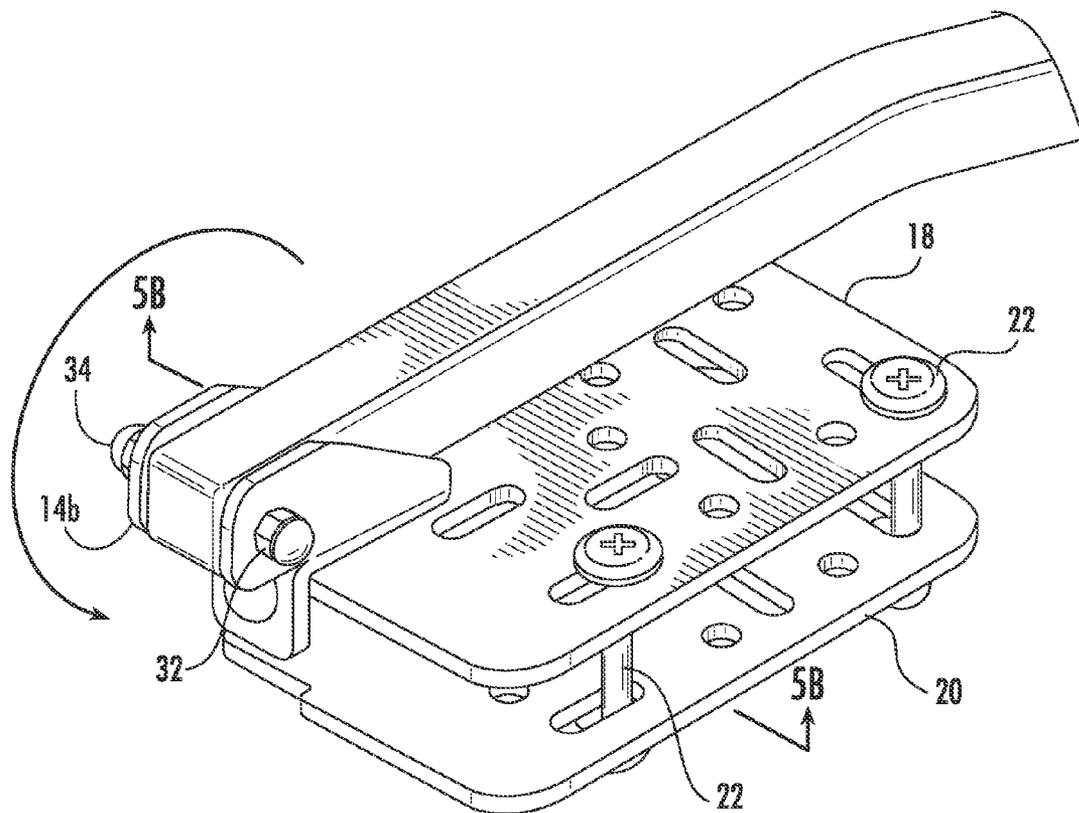


FIG. 5A

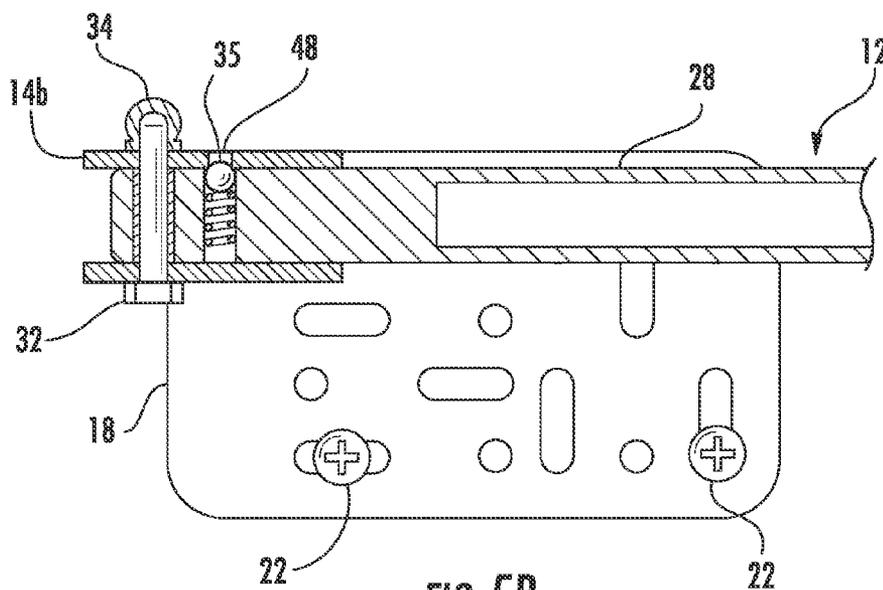


FIG. 5B

FOLDING LEG SUPPORT ASSEMBLY FOR A HUNTER'S TREESTAND

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present patent document claims the benefit of the filing date of earlier filed U.S. Provisional Patent Application Ser. No. 61/149,198, filed on Feb. 2, 2009 and is a continuation-in-part of U.S. patent application Ser. No. 12/251,011, filed on Oct. 14, 2008, which is a non-provisional of U.S. Provisional Patent Application Ser. No. 60/979,579, filed on Oct. 12, 2007, the entire contents of which are incorporated herein by reference.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The present invention relates generally to portable treestands used by hunters and more particularly to an improved leg support assembly that may be attached to treestands.

[0004] 2. Background of the Related Art

[0005] Portable treestands for hunting have been used for many years. Such treestands are available in an extremely wide variety of types, providing a myriad of sizes, shapes, materials of construction, mounting mechanisms and other features. Generally speaking, treestands come in four main varieties: tripod stands, ladders stands, hang-on stands, and climbing treestands. Tripod stands do not require a tree in order to be erected. U.S. Pat. No. 5,009,283, issued to Pre-jean, is an example of a prior art tripod stand. Ladder stands incorporate a ladder with a platform attached to top end of the ladder. Ladder stands are leaned against a tree and secure with a straps and chains. U.S. Pat. Nos. 3,630,314, issued to Bam-burg, and 3,057,431, issued to George, are examples of prior art ladder stands. Hang-on stands are platforms that are strapped to the trunk a tree. Because hang-on stands do not include a ladder, the hunter must bring some other means to climb a tree to install the tree stand, such as tree spikes, for instance. U.S. Pat. No. 3,065,821, issued to Hundley, Jr., is an example of a hang-on tree stand. Lastly, climbing treestands are platforms configured to allow the hunter to install the treestand without the aid of a ladder by shimmying up the tree using the treestand itself as a climbing aid. U.S. Pat. Nos. 3,460,649, issued to Baker, and 3,485,320, issued to Jones, are examples of prior art climbing treestands.

[0006] Because hunters may spend hours on end in a tree-stand, it is important that the hunter is comfortable. Many treestands include some sort of seat on the treestand platform. However, many portable treestands lack a seat or have a tiny seat in order to make them as lightweight as possible. Portable treestands that lack a seat are typically not intended to be sat on by a hunter. If the hunter sits on these platforms, however, the hunter's lower legs and feet dangle. If the hunter's lower legs and feet are allowed to dangle, however, the hunter's circulation to his feet becomes impaired because of the pressure exerted behind the knees of the hunter's legs by the mere weight of his lower legs and feet and boots restricts blood flow. This can result in the hunter's lower legs and feet "falling asleep" and becoming cold. Consequently, the hunter can become fatigued and risks succumbing to the effects of exposure. Accordingly, it is desirable to provide some structure to

support the hunter's feet and prevent loss of circulation to the hunter's lower legs and feet, yet is lightweight for portable treestands.

SUMMARY OF THE INVENTION

[0007] The folding leg support assembly for a treestand described herein solves the problems of the prior art by providing an assembly to prevent fatigue and reduce restriction of blood circulation to the hunter's legs and feet, which enables the treestand platform to be comfortably used as a seat by the hunter. The folding leg support assembly also includes the added advantage of aiding the hunter to climb into the teestand by providing a handle and step (when the leg support is folded down) that the hunter can grab and step on as he ascends. The folding leg support includes a pair of mounting plates that permit the leg support to be coupled to a variety of platforms to permit the assembly to be attached to tree-stands that lack leg supports.

[0008] Specifically, the assembly includes a bracket adapted for mounting to a platform and a leg support connected to the bracket. The leg support is movable about the bracket between an open deployed position and a folded stowed position. The assembly may further include a mechanism to lock the leg support in it open and stowed positions, respectively.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] These and other features, aspects, and advantages of the treestand will become better understood with reference to the following description, appended claims, and accompanying drawings where:

[0010] FIG. 1 shows a top view of an embodiment of the folding leg support of the present invention'

[0011] FIG. 2 shows a top view of the embodiment shown in FIG. 1 coupled to an exemplary treestand platform;

[0012] FIG. 3 shows a left side view of an embodiment of the treestand platform of the present invention, it being understood the right side view is the mirror image thereof;

[0013] FIG. 4A shows a top view of a left side support bracket and top mounting plate of the folding leg support of the present invention, it being understood that the right dies support bracket is the mirror image thereof;

[0014] FIG. 4B shows a front view of the left side support bracket, top mounting plate and bottom mounting plate;

[0015] FIG. 4B shows a left side view of the left side support bracket, top mounting plate and bottom mounting plate;

[0016] FIG. 5A shows a perspective view of the entire right side bracket assembly couple to an end of the leg support; and

[0017] FIG. 5B shows a cross-section view through line 5B-5B of FIG. 5A.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0018] Referring to FIG. 1, the folding leg support assembly of the present invention is shown generally at **10**. The folding leg support assembly **10** includes a leg support **12** pivotally coupled to a left support bracket **14a** and a right support bracket **14b** (collectively **14**). Each support bracket **14** further includes a mounting plate assembly **16** including a top plate **18**, bottom plate **20** and a number of bolts **22** connecting the top plate **18** to the bottom plate **20**. Each of these assemblies **16** will be described in greater detail below. As

shown in FIG. 2, the folding leg support assembly 10 is configured and arranged to be coupled to a treestand platform 24.

[0019] Referring back to FIG. 1 now, the folding leg support assembly 10 includes a foot portion 26 and arm portions 28 extending from each end of the foot portion 26. The foot portion 26 may include grip tape on to enhance the surface traction of the foot portion 26 and prevent the hunter from slipping. Referring to FIG. 3, the folding leg support 10 may include rubber bumpers 30 to prevent rattling of the leg support 12 against the platform 24 while the leg support 12 is folded closed.

[0020] Each arm portion 28 is secured to its own support bracket 14 by a shoulder screw 32 secured by an acorn lock nut 34. Near the end of each support arm 28 of the leg support 12 are spring-biased ball plungers 35, which are used to selectively lock the leg support 12 in its open or closed position as desired.

[0021] Referring now to FIGS. 4A-C, each support bracket 14 includes a body portion 36 having a downwardly depending hook 38. A rubber bumper 40 may be coupled to the hook 38 to prevent rattling of the leg support 12 against the platform 24 while the leg support 12 is deployed to the open position. Extending upwardly from the body portion 36 is a pair of spaced-apart support structures 42 configured to receive the free ends of a support arm therebetween, as shown in FIGS. 5A and 5B.

[0022] Each support structure 42 includes an aperture 44 for receiving the shoulder screw 32 to retain the support arm 28 to the bracket 14. Also included is a pair of additional apertures 46, 48 that are radially space-apart about the shoulder screw-receiving aperture 44 and are sized to receive the spring-biased ball plunger 35. One aperture 46 is positioned to receive the spring-biased ball plunger 35 while the leg support 12 is in the deployed position, and the other aperture 48 is positioned to receive the ball plunger 35 while the leg support 12 is stowed upwardly against the top surface of the treestand platform 24.

[0023] Each support bracket 14 is connected to a mounting assembly 16. In particular the bottom surface of the support bracket 14 is welded to a top plate 18. The top plate 18 includes a plurality of slots and holes formed therethrough. The mounting assembly 16 further includes a bottom plate 20 that also includes a number of apertures and slots formed therethrough that correspond to the same slots and holes formed in the top plate 18. A number of bolts 22 and acorn nuts 50 couple the bottom plate 20 to the top plate 18.

[0024] To attach the folding leg support assembly 10 of the present invention to a treestand platform 24, a hunter follows a few simple steps. First, the hunter disconnects the bolts 22 and acorn nuts 50 retaining the top and bottom plates 18, 20 together. The hunter then places the top plate 18 over the top surface and near the front edge of the treestand platform 24 and the bottom plate 20 on the bottom surface and front edge of the treestand platform and carefully aligns the holes and slots in both plates 18, 20. If necessary, the hunter may have to drill holes through the platform 24. However, this is often not necessary because many prior art platforms already include holes therethrough already. The hunter then replaces the bolts 22 and nuts 50 through suitable unblocked holes or slots in the top and bottom plates 18, 20 and, therefore, also through the platform 24, and tightens the acorn nuts 50 to secure the mounting plate assembly 16 to the platform 24.

[0025] Because the mounting plate assemblies 16 are near the front edge of the platform 24, the folding leg support 12 may be deployed downwardly.

[0026] Therefore, it can be seen that the folding leg support assembly 10 provides a unique solution to the problems of the prior art by providing a folding leg support assembly 10 that may be easily connected to a variety of treestand platforms 24 without extensive retrofit thereto. When used, the folding leg support assembly 10 of the present invention will prevent a hunter from becoming fatigued to the hunter's lower extremities through reduced circulation caused by sitting on the platform 24.

[0027] It would be appreciated by those skilled in the art that various changes and modifications can be made to the illustrated embodiments without departing from the spirit of the present invention. All such modifications and changes are intended to be within the scope of the present invention except insofar as limited by the appended claims.

What is claimed is:

1. A folding leg support assembly for a hunter's treestand, comprising:
 - a bracket adapted for mounting to a platform of a hunter's treestand; and
 - a leg support connected to the bracket; the leg support movable about the bracket between an open deployed position and a folded stowed position.
2. The folding leg support assembly of claim 1, wherein the bracket further comprises a top plate and a bottom plate fastened to the top plate.
3. The folding leg support assembly of claim 2, wherein the top plate is fastened to the bottom plate with at least one bolt.
4. The folding leg support assembly of claim 1, further comprising a foot portion having a non-slip surface.
5. The folding leg support assembly of claim 1, further comprising a locking mechanism configured and arranged to selectively lock the leg support in the deployed position and the stowed position.
6. The folding leg support assembly of claim 1, further comprising at least one bumper extending from the bracket and engaging the leg support when the leg support is in the deployed position.
7. The folding leg support assembly of claim 1, further comprising at least one bumper extending from the leg support and engaging the platform while the leg support is in the stowed position.
8. A folding leg support assembly for a hunter's treestand, comprising:
 - a bracket adapted for mounting to a platform of a hunter's treestand; and
 - a leg support pivotally connected to the bracket; the leg support pivotable about the bracket between an open deployed position and a folded stowed position.
9. The folding leg support assembly of claim 8, wherein the bracket further comprises a top plate and a bottom plate fastened to the top plate.
10. The folding leg support assembly of claim 9, wherein the top plate is fastened to the bottom plate with at least one bolt.
11. The folding leg support assembly of claim 8, further comprising a foot portion having a non-slip surface.
12. The folding leg support assembly of claim 8, further comprising a locking mechanism configured and arranged to selectively lock the leg support in the deployed position and the stowed position.
13. The folding leg support assembly of claim 8, further comprising at least one bumper extending from the bracket and engaging the leg support when the leg support is in the deployed position.

14. The folding leg support assembly of claim **8**, further comprising at least one bumper extending from the leg support and engaging the platform while the leg support is in the stowed position.

15. A folding leg support assembly for a hunter's treestand, comprising:

- a bracket;
 - a top plate depending from the bracket;
 - a bottom plate fastened to the top plate, the top plate and bottom plate configured and arranged to fasten about a platform of a hunter's treestand; and
 - a leg support pivotally connected to the bracket;
- the leg support pivotable about the bracket between an open deployed position and a folded stowed position.

16. The folding leg support assembly of claim **15**, wherein the top plate is fastened to the bottom plate with at least one bolt.

17. The folding leg support assembly of claim **15**, further comprising a foot portion having a non-slip surface.

18. The folding leg support assembly of claim **15**, further comprising a locking mechanism configured and arranged to selectively lock the leg support in the deployed position and the stowed position.

19. The folding leg support assembly of claim **15**, wherein the top plate and bottom plate further comprise a plurality of complimentary slots and apertures formed therethrough.

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