United States Patent [19]

Millen

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[54] **TRIPOD ACCESSORY ATTACHMENT DEVICE**

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[52] **U.S. Cl.** **248/201,** 248/221, 248/246, 248/302

[51] **Int. Cl.** **A47f 7/00**

[58] **Field of Search** 248/201, 221, 246, 248/249, 302, 303, 307, 168

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[57] **ABSTRACT**

A device is disclosed for supporting artist's accessories on the tripod of an easel or the like. The device comprises a pair of spaced parallel coplanar arms which are connected the accessory to project therefrom, and to be rotatable about the longitudinal axes thereof, and which have free-ended convolutions on the projected end portions thereof that are rotated into a bind fit with a pair of legs in the tripod when the arms are generally horizontally disposed adjacent the legs and the device is rested thereon.

6 Claims, 7 Drawing Figures

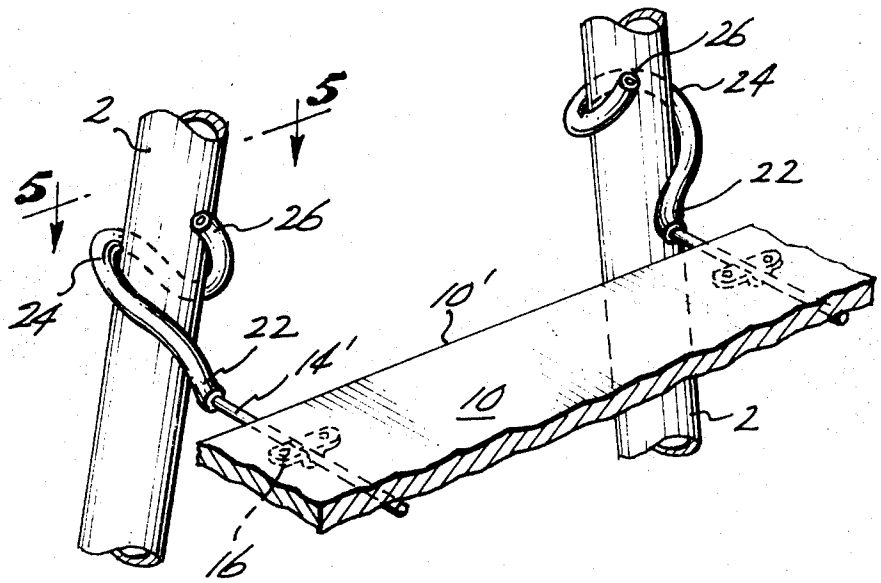


Fig. 1.

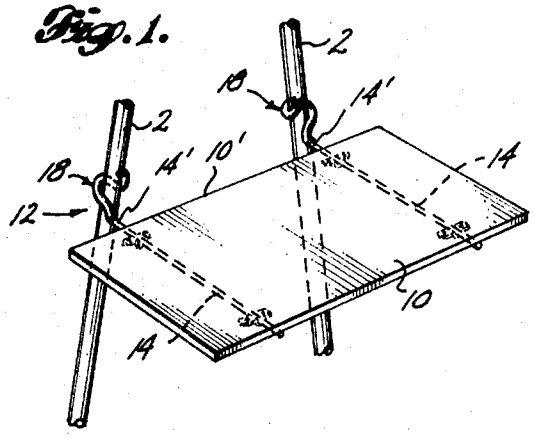


Fig. 6.

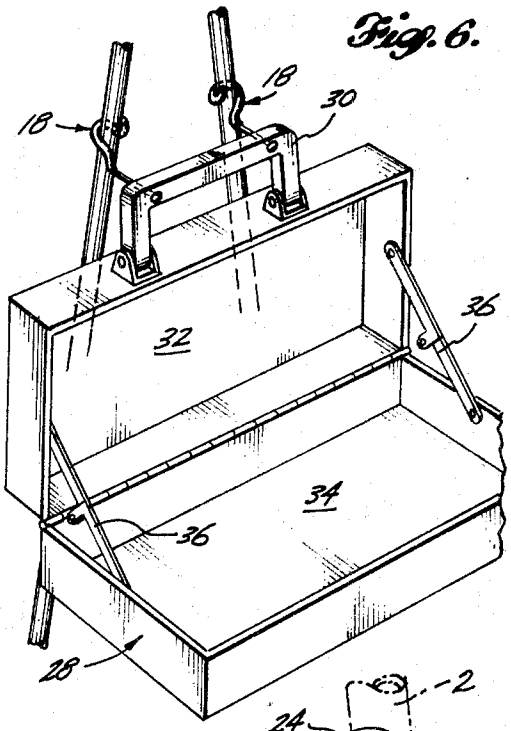


Fig. 7.

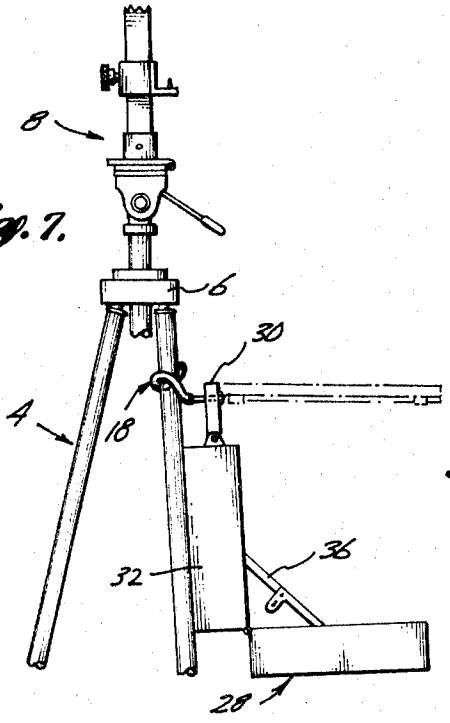
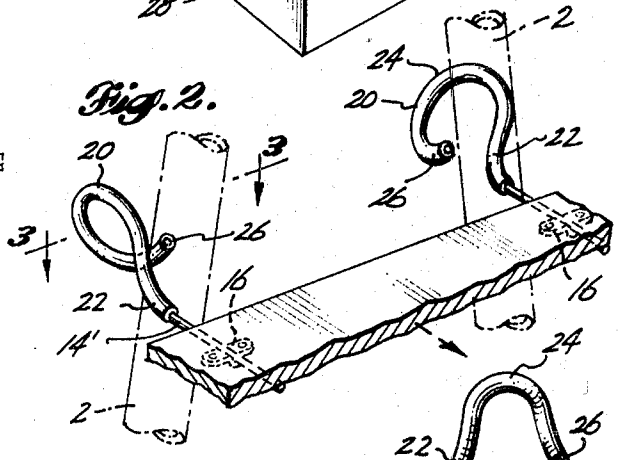


Fig. 2.



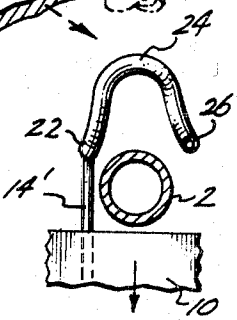


Fig. 3.

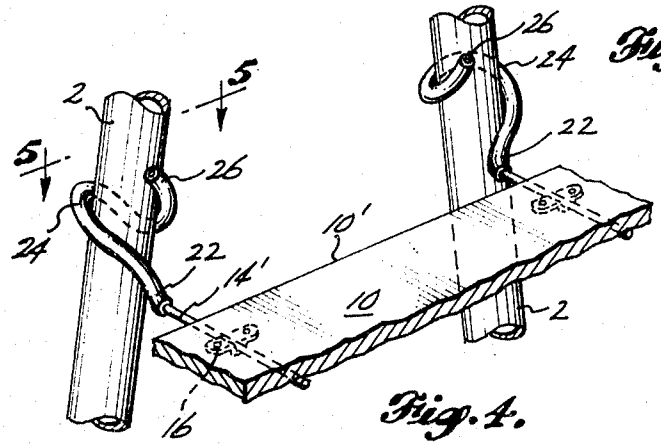
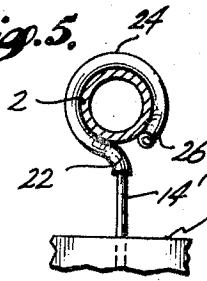


Fig. 4.

Fig. 5.



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TRIPOD ACCESSORY ATTACHMENT DEVICE

FIELD OF THE INVENTION

This invention relates to attachment devices, and in particular to devices of this nature for supporting a body in outrigger fashion on a pair of spaced upwardly obliquely inclined standards, such as the legs of an easel, an awning, a surveyor's transit or the like.

SUMMARY OF THE INVENTION

According to the invention, a body, such as a pallet board, brush box, or other artist's accessory, may be supported in outrigger fashion on the legs of an easel by equipping the accessory with a pair of spaced parallel coplanar arms which are connected to the accessory to project therefrom, and to be rotatable about the longitudinal axes thereof, and which have flanges on the projected end portions thereof, that in turn have reentrantly bent collets connected thereto, the bights of which are disposed in inverted relationship to the accessory, so that the collets can be passed about the legs from the flanges and rotated into engagement with the relatively downwardly facing sides of the legs, to achieve a bind fit with the legs, when the flanges are rested on the relatively upwardly facing sides of the legs.

Preferably, the collets have a generally twisted U-shaped configuration and are connected at one end to the flanges, and there are hooks on the opposite ends of the collets for engaging the relatively upwardly facing sides of the legs at a level above the flanges and the collets.

In the presently preferred embodiments of the invention, the collets and hooks follow a generally smoothly curving spiral course from the flanges; as for example, where the arms have free-ended convolutions on the projected ends thereof which take the form of truncated sections of a helix.

BRIEF DESCRIPTION OF THE DRAWINGS

These features will be better understood by reference to the accompanying drawing which illustrates two instances in which such a device is used to support an artist's accessory on the tripod of an easel.

In the drawing,

FIG. 1 is a part perspective view wherein the device is employed to support a pallet board on the tripod;

FIG. 2 is a part perspective view at the stage wherein the device is positioned for engagement on the tripod;

FIG. 3 is a corresponding part cross sectional plan view of the device;

FIG. 4 is a part perspective view at the stage wherein the device is engaged on the tripod;

FIG. 5 is a corresponding part cross sectional plan view of the device;

FIG. 6 is a part perspective view wherein the device is employed to support a brush box equipped with a swingable handle having the device attached thereto; and

FIG. 7 is a part elevational view of this second application.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring first to FIGS. 1–5, it will be seen that the legs 2 of the tripod 4 (FIG. 7) are articulated within the base 6 of the easel 8, to be canted and spread in different angularly spaced directions about the base for purposes of erecting the easel upright thereon. The legs 2 have a round or cylindrical cross section, but may have some other cross section, such as an orthogonal or polygonal cross section, and may even have a non-geometrical cross section, such as where they are channel-shaped in cross section.

At one side of the easel, is a pallet board 10, supported in outrigger fashion on the tripod 4 by means of a device 12 which is connected therewith for this purpose. The device 12 comprises a pair of rods 14 which are strapped to the underside of the board 10, so as to project equidistantly from one longitudinal edge 10' thereof, in spaced parallel coplanar relationship to one another, but which are journalled within the straps 16 so that they can turn freely at the projected ends 14' thereof.

The rods 14 are equipped in turn with a pair of similarly sized and shaped convolutions 18 at the projected ends 14' thereof, which may be integral with the rods, as for example, where the projected end portions of the rods are bent into the shape of the same, or separate elements that are otherwise attached to the rods. Those shown are integral with the rods and are enclosed in polyethylene sleeves 20 which serve to increase the surface friction thereof.

Each convolution takes the form of a truncated section of a helix having a foreportion 22 immediately adjacent the projected end 14' of the rod, which is bent relatively laterally away from the longitudinal axis of the rod, to form a flange on the end thereof. In addition, each convolution has an intermediate portion 24 which is twisted, but generally U-shaped in configuration, and inverted to the edge 10' of the board, to form a part annular collet which is adapted to pass about and engage the back or inverse side of a leg of the tripod, when the flange 22 is "heeled" against the front or obverse side thereof. There preferably also is a hook portion 26 on the distal or reentrant end of the collet 24 which abuts the front side, at a higher level on the leg than both the collet and the flange, to prevent the convolution from escaping the leg, when the pair of convolutions is passed to the outside of and beyond a pair of legs, as in FIGS. 2 and 3, then rotated in opposite angular directions about the axes of the arms, and then withdrawn in the opposite direction, to engage them on the legs, as in FIGS. 4 and 5.

In the application of FIGS. 6 and 7, the box 28 is bulkier and heavier, and the device 12 is cantilevered from the handle 30 of the box, on one vertical side thereof, to support the box by means of the cover 32 thereof, the cover in the meantime resting against the legs with the bed 34 of the box outstretched therefrom on the hinged toggle connections 36 therebetween.

What is claimed is:

1. In combination, a body and means for supporting the body in outrigger fashion on a pair of spaced upwardly obliquely inclined standards, including a pair of spaced parallel coplanar arms which are connected to the body to project therefrom and to be rotatable about the longitudinal axes thereof, and which have flanges on the projected end portions thereof, that in turn have reentrantly bent collets connected thereto, the bights of which undergo twist over the length thereof and are disposed in inverted relationship to the body, so that the collets can be passed about the standards from the flanges and rotated into engagement with the stan-

dards, to achieve a bind fit with the standards, wherein the flanges are rested on the relatively upwardly facing sides of the standards and the collets are engaged with the reverse sides of the standards at points spaced relatively thereabove.

2. The combination according to claim **1,** wherein collets have a generally twisted U-shaped configuration and are connected at one end to the flanges, and there are hooks on the opposite ends of the collets for engaging the relatively upwardly facing sides of the standards at a level above the flanges and the collets.

3. The combination according to claim **2,** wherein the collets and hooks follow a generally smoothly curving spiral course from the flanges.

4. The combination according to claim **3,** wherein the arms have free-ended convolutions on the projected ends thereof which take the form of truncated sections of a helix.

5. In combination, a body, a pair of spaced upwardly obliquely inclined standards, and means supporting the body in outrigger fashion on the standards, including a pair of spaced, parallel coplanar, generally horizontally disposed arms which are connected to the body to project therefrom, and to be rotatable about the longitudinal axes thereof, and which have flanges on the projected end portions thereof, that in turn have reentrantly bent collets connected thereto, the bights of which undergo twist over the length thereof and and are disposed in inverted relationship to the body, the flanges resting on the relatively upwardly facing sides of the standards and the collets passing about the standards and engaging the relatively downwardly facing sides of the standards at points spaced relatively thereabove, to achieve a bind fit therewith by virtue of the moment generated about the flanges by the body.

6. The combination according to claim **5,** wherein the arms have free-ended convolutions on the projecting ends thereof which take the form of truncated sections of a helix.

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