ARTIST'S HORSE

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ABSTRACT

A collapsible assembly which can be portably transported in collapsed position, and which can be erected to be used as a bench on which a user can be seated, said assembly including a movable easel arm erected to selected angular and linear positions to hold illustrating materials.

2 Claims, 10 Drawing Figures
ARTIST'S HORSE

This application is a continuation-in-part of Ser. No. 125,775, filed Mar. 18, 1971, by the same applicant.

This invention relates to an assembly which can be carried and erected for art work or the like. In particular, the invention relates to a collapsible bench assembly which may be carried by an artist or the like, and which can be erected so the artist may be seated on parts of the assembly while other parts are used to hold drawing pads or the like and various drawing materials and implements.

There are many occasions when an artist or the like wishes to work outside a studio or equivalent area where fixtures, implements and materials are set up in a relatively permanent manner. Portable easels or the like can be carried and erected to support work pieces for painting landscapes, for example, it is generally required, however, that the artist also carry a chair or bench, or do without.

It will be appreciated that a collapsible, portable bench which an artist can use to advantage would be highly desirable. It will be appreciated that such a bench should not be too heavy, should be stable, should be collapsed and erected with relative simplicity, and be sufficiently versatile in features and uses to be a truly useful device.

In accordance with the foregoing it is one important object of the present invention to provide a collapsible bench assembly to be used by artists or the like which is of improved construction so that said bench may be easily portable, and easily erected and collapsed.

It is yet another important object of the present invention to provide a bench assembly of the type described which forms a neat compact package when fully collapsed, so that the package may be easily transported with the help of manual support means such as a releasable strap and handle assembly.

Still yet another important object of the present invention is a collapsible bench assembly of the type described in which parts are provided to increase the versatility of the bench for holding work pieces for illustration materials, implements, and the like. Such features include improved adjustability of an easel arm, improved means to hold art implements and materials and the like.

Yet still another important object of the present invention is a collapsible bench assembly of the type described which provides convenient three-point stability to accommodate to various irregularities in a support surface, such as outdoor ground surface.

The foregoing objects are now attained with still other objects which will occur to practitioners from time to time, by disclosure of the following invention, including drawings wherein:

FIG. 1 is a side elevational view of the bench assembly in erected position;
FIG. 2 is a side elevational view of the bench assembly in collapsed position;
FIG. 3 is a perspective, exploded view of the bench assembly on an enlarged scale; and
FIG. 4 is a partial top plan view showing the pivot assembly on a reduced scale;
FIG. 5 is a side elevational view of an alternative embodiment of a bench assembly, in collapsed position;
FIG. 6 is a side elevational view of the bench assembly of FIG. 5 in erected position;

FIG. 7 is a top plan view of the bench assembly of FIG. 5.
FIG. 8 is a rear end view of the erected bench assembly shown in the view of FIG. 6, with the collapsible easel on the top surface not shown.
FIG. 9 is a front elevational view of the bench assembly shown in FIG. 6 with portions removed; and
FIG. 10 is a perspective view of a handle and strap assembly used to conveniently transport the bench assembly in collapsed position.

The erected bench assembly shown in FIG. 1 has a support leg 10 at one end and an opposite end support leg 12. The legs are shown as unitary elements, but other constructions may be selected. A bench surface 61 has a width to allow a user to straddle same with one leg on each side of the bench along its long axis. The position is in the manner of riding a horse.

The legs supports 10 and 12 have means which fix such legs in an extended or erected position, but which allow such legs to be collapsed. The means are shown as collapsible and locking hinge assemblies 18. Each assembly has an angle bracket 19, one arm of the angle being secured to the bottom of the bent surface 61. A pivot 20 allows the bracket to be folded. The illustrated hinge assembly has a leg end pivot 21, a bench end pivot 22 and an intermediate pivot 24. Such pivots cooperate to attain the collapsed position of the hinge assembly as shown in the view of FIG. 2.

An easel arm or member 26 is mounted on the top of the bench 15. The easel arm has base wings or extensions 28 on opposite sides at the bottom thereof. The bottom portion of the easel arm also has an adjusting groove 31 and a communicating slot 31 between the adjusting groove and the bottom of the easel arm.

The easel arm is mounted to an adjustable pivot assembly 32 which is shown as including a channel base 33 on which is mounted a pivotable upright 34. The pivotable upright has generally triangular side walls 35, each of which has arcuate teeth 36. The pivotable upright 34 turns about a pin shaft 37 which moves through openings in opposite channel walls 38.

The pivot assembly 32 is adjustably fixed by means such as those illustrated in the view of FIG. 4. A detent element 39 passes through slotted bores 40 in the opposite channel side walls 38. The detent element is a blade-like member having a leading edge 41 for engaging the arcuate teeth 36. A catenary leaf spring 42 has one end urged against the inside channel wall 38, and the opposite end is urged against a lug 43 on the detent element. The detent element is laterally actuated against the urgings of the catenary spring 42 to release engagement of the leading edge 41 from the teeth 36, and release of the detent element leads to re-engagement of the leading edge with the teeth in response to the urgings of the catenary spring.

The pivotable upright 34 is shown with spaced screw passageways 48 to receive the shanks of screws 50 which move through oversized adjusting groove 30 of the easel arm. Wing nuts 52 then engage the screws to selectively linearly adjust the easel member for a given angular position of the pivot assembly 32. The linear adjustment is limited for the opposite ends of the adjusting groove 30. The communicating slot 31 is formed to more conveniently fashion the adjusting groove 30, but such communicating slot may be dimensioned to allow the screws 50 to pass therethrough to
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separate the easel arm from the pivot assembly without removing wing nuts 52.

The artist’s workpiece may be selectively positioned on the easel arm by providing track grooves 54 along the opposite side edges of the easel arm. The grooves are open at the top and closed at the bottom so support members may be removed at the top of the easel arm. Such members are shown to include a top abutment member 56 having a block 58 and outwardly bent fingers 60 depending from the front face of said block. The fingers are secured to the front face by fasteners 61. The rear face of the block has spaced angle slides 62, each of which has a sliding leg 63 adapted to engage and ride the grooves provided in the opposite side edges of the easel arm. The top abutment member is shown as being freely slidable by gravity until the block contacts the workpiece and the fingers overlap the top edge of such a workpiece.

Another support member is the bottom abutment member 64 which is also shown as having a block 66. The block has a shelf 68 extending at right angles to the face of the block 66, and such shelf has a holding flange 70 extending at right angles from the plane of the shelf 68. Angle slides 72 are secured to the rear face of the block 66, and each one of these angle slides has a sliding leg 73, which is likewise adapted to engage the track or elongated groove 54 at the opposite side edges of the easel arm.

The bottom abutment member is also shown as provided with a stop assembly 74 which includes an angle bracket 76 secured by a set screw 78 which engages the holding flange 70. A stop arm 80 is urged by means such as a spring (not shown) so that a ribbed elastomeric friction head presses against the front face of the easel arm 26. The friction head is moved away from engagement by manually actuating the stop arm against the urging means to thereby release the bottom abutment member for repositioning along the length of the easel arm. The stop arm represents a downward and angular vector against the easel arm to provide frictional contact in proportion to the downward force or weight of the bottom abutment member.

A yoke support member 84 is shown as an ancillary feature for mounting across the width of the bench 16. The yoke support includes struts or braces 86 which are joined by fasteners 88 at their opposite ends to spaced sideboards 90. The sideboards have a contoured tapering end 92 to comfortably accommodate the areas of the knees of the user when seated. The struts 86 span the width of the bench and the inside edges 91 of the sideboards then adjoin or abut the opposite side edges of the bench. The top surfaces of the sideboards may be used to support materials and equipment such as the palette, paint box, or similar items. A magnet disc 94 is shown secured to the top surface of one of the sideboards, and such a disc can be used to hold the metallic parts of brushes, metallic water cans, or other metallic items which could be conceivably used.

The collapsed configuration of the bench assembly is attained by removing the top and bottom abutment members from the easel arm, and then repositioning them on said easel arm but in reverse position so that the blocks are on the reverse face of the easel arm. If necessary, the easel arm must be linearly adjusted away from the top of the bench so that the bottom of the arm is above the bottom of the triangular sidewalls 35 of the pivot assembly. The detent element 39 may then be held in release position until the upright 34 of the pivot assembly is moved through the corner cutouts of the blade element, to thereby remain free following release of said detent element. The easel arm is then moved inboard to a position alongside the top of the bench. A snapdown assembly 96 may then be actuated to contact the reverse face of the easel arm toward the top thereof.

Such a snapdown assembly is shown as having a base 98 with a curved arm 100 which rotates about pivot 101 in the base. The end of the arm has a roller 102, which may be resilient for contacting the easel arm. A spring 104 urges the curved arm against the easel arm. The snapdown assembly is released by rotating the curved arm 100 against the urgings of spring 104 until such arm pivots over dead center, according to the usual operation. The yoke support is preferably moved to an inactive position on the bottom of the bench where hold down nuts mounted in the bottom of the bench may be rotated to form interlocks with the struts 86 spanning the bottom width of the bench. The reversely positioned stop arm 80 may also be mounted on an easel arm which extends beyond the bench. The friction head 82 of the stop arm may then engage the bottom of the bench to hold down the easel arm. This engagement may be preferred because of the advantage of dispensing with the need of a separate snap down assembly.

The support legs are likewise moved inboard to a position alongside the bottom of the bench by collapsing the hinge assembly as previously indicated. Means to facilitate the portable transport of the collapsible package are then provided such as the illustrated releasable strap hands 108 and 110 which are connected by a joining strap 112. A handle 114 may be a U-shaped element fixed to the joining strap 112 so that such handle may be easily grasped. Buckles or the like, which are not shown, may be provided for the releasable strap hands 108, 110.

It will be seen that the collapsed bench assembly makes a neat, compact package wherein the leg supports, the bench, and the easel arm are grouped as closely adjoining, substantially parallel tiers.

The views of FIGS. 5-9 show an alternative embodiment including variations of the support legs and the pivot assembly for the easel member. Similar hinges assemblies 116 are shown joined to angle brackets 117 having angle pivots 118 of a construction as previously described.

The hinge assemblies and brackets connect the bottom surface of the elongated bench 119 to rearward support member 121 and forward support member 122. The rearward support member 121 is shown with two ground contacting portions 123, provided with buttons 124, to attain a two-point support. The forward member 122 is shown with a single ground contacting portion 125, provided with a support button 126, to attain a one-point ground support.

The pivotable easel arm 130 is similar to the easel arm previously described, in that it has a bottom cross-bar 132 shown as formed from lateral extensions 133 which are joined to the bottom of the easel arm 130 by tongues 135 seated in elongated grooves 137 of the easel arm. Hinge members 139 pivotally connect the lateral extensions 133 of the cross-bar 132 to the top surface of the elongated bench 119.
The foregoing hinge members 139 comprise a part of a hinge assembly for adjustably positioning the easel arm 130 at a desired angle relative to the plane of the elongated bench. Such a pivot assembly includes means to quickly fix the easel arm in the adjusted angular position, and to quickly release such arm for changing its angular position. Such means include a casing rod 140 having a top enlargement 141 and having a bottom joined to a pivot member 142 which is fixed to the elongated bench by fasteners 143. The casing rod follows the angular position assumed by the easel member, and such rod moves through aligned openings 144 in collar 145 which is mounted to block 146 immovably fixed to the back of easel member 130. The casing rod is locked against movement through collar 145 by setscrew 147 which threadably engages the interior of collar 145. The casing arm is therefore quickly released from locked position by loosening setscrew 147 so that the arm can be quickly and directly repositioned, whereupon the new position is fixed by tightening setscrew 147.

The alternative embodiment illustrated in foregoing FIGS. 5-9 leads to certain advantages, such as the three point support attained by the rearward and forward support members. It will be additionally seen that such three point support can have the illustrated configuration to attain more compact packaging in the collapsed position. The two point support portions of the rearward support member 121 define a “V” or angular space or female cut-out therebetween, and the single point support portion of the forward support member 122 is at the apex of a V-shaped male portion which is accommodated in the cut-out or space of the rearward support member in fully collapsed position, as indicated in the view of FIG. 5. It will further be seen that the easel member 130 does not require an adjusting groove such as 30 in the easel member 26, shown in FIG. 3. It is also seen that the hinge members 139 have an inset arm joined to the crossbar 132, thereby allowing the casing arm to contact the top surface of the elongated bench when fully collapsed. This provides a full lay-down of the casing arm in collapsed position, to again attain more compactness in the collapsed package.

The view of FIG. 10 shows one handle means for carrying the bench assembly in collapsed position. A handle 150 has a strap doubled over ring 152 and fastened at 153. One of the doubled portions 154 has a buckle 155 at its end and the other doubled portion 156 is elongated relative to double portion 154. Doubled portion 156 has a plurality of adjusting buckle holes 157. The free end of doubled portion 156 is passed through ring 158 of handle 150 after such portion encircles the collapsed bench assembly. The end of portion 156 is then engaged to buckle 155 in the usual way. Other strap and handle assemblies may be provided, as well as simple handle means removable or fixed to one of the side edges of the elongated bench, for example.

The claims of the invention are now presented and the terms thereof should be further understood by reference to the foregoing specification and drawings.

What is claimed is:

1. A collapsible assembly for art work or the like, including:

an elongated bench having a top and a bottom,
a solid panel support leg member pivotally mounted at one end of the bench, a female cutout in the bottom of said leg member, a support point on each side of said cutout,

another solid panel support leg member pivotally mounted at the opposite end of the bench, a single support point on a male portion mating with said female cutout portions when the legs are collapsed inboard alongside the bottom of said bench,

means to fix said legs in a fixed, extended position, a pivot assembly mounted to the top of said bench toward one end thereof,

means to fix the pivot assembly in a selectively pivoted position, an elongated rod pivoted to the top surface of the elongated bench, a locking member mounted to the back face of an elongated easel member, a passageway of the locking member slidably receiving said rod, and means to selectively lock the rod in the passageway,

said elongated elongated easel member having a front supporting face for an illustrating work piece and a back face, the bottom portion of said easel member secured to at least a part of said pivot assembly so that said easel member may be positioned and locked at a selected angle relative to the top of said bench, said easel member being moveable inboard to a position alongside the top of said bench and lockable in said position,

top abutment member slidably positioned on said easel member to contact a top edge of the illustrating workpiece and depending means on said top abutment member to overlap the top of the illustrating workpiece, and

a bottom abutment member slidably positionable along the length of said easel member to hold a bottom edge of the illustrating workpiece, and a spring urged friction head engageable with the front face of said easel member to fix said bottom abutment member in a selected position on said easel member.

2. A collapsible assembly as in claim 1 above, wherein said easel member has a planer front face, and opposite side edges, and wherein said bottom and abutment members have slides at the opposite sides thereof slidably engageable with tracks at the opposite side edges of said easel member.