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Painting tool organization

Abstract

An organizer for paint applicators includes a tray and a first set of one or more tabs. The tray has interior and exterior surfaces extending between first and second ends and forming a lower trough exhibiting a lower curve and having a lower edge, an upper trough exhibiting an upper curve and having an upper edge and a ridge exhibiting an intermediate curve and joining the lower and upper troughs. The first set of one or more tabs extend from the upper edge of the upper trough in a first direction and exhibit first, second and third curves.

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Background/Summary

SUMMARY

(1) The disclosure describes an organizer for paint applicators. The organizer includes a tray and a first set of one or more tabs. The tray has interior and exterior surfaces extending between first and second ends and forming a lower trough exhibiting a lower curve and having a lower edge, an upper trough exhibiting an upper curve and having an upper edge and a ridge exhibiting an intermediate curve and joining the lower and upper troughs. The first set of one or more tabs extend from the upper edge of the upper trough in a first direction and exhibit first, second and third curves.

(2) The disclosure also describes a painting caddy. The painting caddy includes a tray and end cups. The tray has interior and exterior surfaces extending between first and second ends and forming a lower trough exhibiting a lower curve and having a lower edge, an upper trough exhibiting an upper curve and having an upper edge and a ridge exhibiting an intermediate curve and joining the lower and upper troughs. The end cups are configured for engaging first and second ends of the tray at the upper trough and have one or more vessel engagement appendages extending therefrom.

(3) Further, the disclosure describes a method for manufacturing a painting caddy. The method includes providing a sheet of malleable material having first, second, third and fourth edges defining interior and exterior surfaces. The sheet is cut at the first edge to form first and second sets of at least one tab, the sheet is bent to produce lower and upper troughs separated by a ridge, the first set of at least one tab is bent to yield first, second and third curves and the second set of at least one tab is bent to yield first and second curves.

Description

BRIEF DESCRIPTION OF THE FIGURES

(1) The summary above, as well as the following detailed description of illustrative embodiments, is better understood when read in conjunction with the appended drawings. For the purpose of illustrating the present disclosure, example constructions of the disclosure are shown in the drawings. However, the present disclosure is not limited to specific methods and instrumentalities disclosed herein. Moreover, those in the art will understand that the drawings are not to scale. Wherever possible, like elements have been indicated by identical numbers.

(2) Embodiments of the present disclosure will now be described, by way of example only, with reference to the following diagrams wherein:

(3) FIG. **1** illustrates a front view of an example painting caddy or organizer.

(4) FIG. **2** illustrates a rear view of the example organizer of FIG. **1**.

(5) FIG. **3** illustrates a top view of the example organizer of FIGS. **1** & **2**.

(6) FIG. **4** illustrates a bottom view of the example organizer of FIGS. **1**-**3**.

(7) FIG. **5** illustrates a right front perspective view of the example organizer of FIGS. **1**-**4**.

(8) FIG. **6** illustrates a top detail view of components of the example painting caddy or organizer of FIGS. **1**-**5**.

(9) FIG. **7** illustrates a bottom detail view of components of the example organizer of FIGS. **1**-**5**.

(10) FIG. **8** illustrates a front perspective view of the example painting caddy or organizer of FIGS. **1**-**5** provided to the top of a painting vessel.

(11) FIG. **9** illustrates a rear perspective view of the example painting caddy or organizer of FIGS. **1**-**5** provided to the top of a painting vessel.

DETAILED DESCRIPTION

(12) The following detailed description illustrates embodiments of the present disclosure and manners by which they can be implemented. Although the best mode of carrying out the present disclosure has been disclosed, those of ordinary skill in the art would recognize that other embodiments for carrying out or practicing the present disclosure are also possible.

(13) It should be noted that the terms “first”, “second”, and the like, herein do not denote any order, quantity, or importance, but rather are used to distinguish one element from another. Further, the terms “a” and “an” herein do not denote a limitation of quantity, but rather denote the presence of at least one of the referenced item.

(14) Presently, it is typical that a painter would precariously balance a painting roller on the edge of a paint bucket or other paint vessel or leave the roller partially submerged in paint in the bucket or a paint tray.

(15) Embodiments of the disclosure provide a painting caddy or organizer which will provide more secure storage locations for painting applicators when still wet with paint but in between applications to the painted surface. Shortcomings of the prior art, are substantially eliminated, or at least partially addressed by embodiments of the disclosure, enabling improved workflow efficiency for users of paint applicators, implements or tools such as rollers and brushes.

(16) Additional aspects, advantages, features and objects of the disclosure will be made apparent from the drawings and the detailed description of the illustrative embodiments construed in conjunction with the appended claims that follow. It will be appreciated that features of the disclosure are susceptible to being combined in various combinations without departing from the scope of the disclosure as defined by the appended claims.

(17) FIGS. **1**-**5** illustrate an example painting caddy **1000** which may serve as an organizer for a variety of painting applicators and other tools. The organizer **1000** includes a tray **1100** and appendages **1200**. The tray **1100** has interior **1110** and exterior **1120** surfaces extending between first **1130** and second **1140** ends and forming a lower trough **1150** exhibiting a lower curve and

having a lower edge **1151** and an upper trough **1160** exhibiting an upper curve and having an upper edge **1161**. A ridge **1170** exhibits an intermediate curve and joins lower and upper troughs **1150** and **1160**. With lower and upper troughs **1150** and **1160**, organizer **1000** is two-tiered.

(18) Exterior surface **1120** of tray **1100** may be convex at both lower and upper troughs **1150** and **1160** and interior surface **1110** of tray **1100** may be concave at both lower and upper troughs **1150** and **1160**. The center of the radius of curvature of upper trough **1160** may be located along a line approximately parallel with the line along which the center of the radius of curvature of lower trough **1150** is located. In other words, the longitudinal axes of lower and upper troughs **1150** and **1160** are approximately parallel. Lower edge **1151** and upper edge **1161** may be approximately parallel. In all such cases of parallelism, the objects in question will be sufficiently parallel that an ordinary observer would not discover otherwise without careful inspection. In an example, the curvature of upper and lower troughs **1160** and **1150** is consistent or constant between first and second ends **1130** and **1140** of tray **1100**.

(19) A first set of tabs **1162** extend from upper edge **1161** of upper trough **1160** in a first direction and exhibit, reveal or manifest first **1163**, second **1164** and third **1165** curves. First curve **1163** of tabs of the first set **1162** may be continuous and/or contiguous with the upper curve. Third curve **1165** of tabs **1162** of the first set may be configured to cradle a roller frame while an attached roller is cradled by upper trough **1160**. Second curve **1164** transitions tabs **1162** between first and third curves **1163** and **1165**. In an equilibrium state, tabs **1162** of the first set press up/out on a cradled roller frame to wedge between a roller cradled by upper trough **1160** and the roller frame and to effectively grip the roller frame by preventing the frame from overcoming a crest of second curve **1165**. Tabs **1162** of the first set may be configured to flex out of the equilibrium state to reduce or lower the crest of second curve **1165** to accommodate placement of the roller frame in as well as removal of the roller frame from third curve **1165** while the roller is received in the upper trough **1160**. Tabs **1162** of the first set remember their equilibrium state and shape after elastic deformation. While, as shown in the figures as two in number, the number of tabs **1162** associated with the first set may be fewer than or greater than illustrated.

(20) Organizer **1000** may further include, extending from upper edge **1161** of upper trough **1160** in a second direction generally opposite the first direction, a second set of one or more tabs **1166** exhibiting, revealing or manifesting first **1167** and second **1168** curves. First curve **1167** of tabs **1166** of the second set may also be continuous and/or contiguous with the upper curve and may be configured to wrap around and/or partially encircle a roller cradled by upper trough **1160**. In an equilibrium state, tabs **1166** of the second set press in/down on a cradled roller to grip the roller by preventing the roller from overcoming a crest of second curve **1169**. Tabs **1166** of the second set may be configured to flex out of the equilibrium state to reduce or lower the crest of second curve **1169** to accommodate placement of the roller in as well as removal of the roller from first curve **1167** and upper trough **1160**. Tabs **1166** of the second set also remember their equilibrium state and shape after elastic deformation. While, as shown in the figures as two in number, the number of tabs **1166** associated with the second set may be fewer than or greater than illustrated.

(21) Organizer **1000** may further include at least one tab central slot formed between tabs **1166** of the second set and several lateral tab slots formed between tabs **1162** of the first set and tabs **1166** of the second set.

(22) Organizer **1000** may further include a roller frame support rod or rail **1155** provided between flanges **1152**, **1153** at first and second ends **1130** and **1140** of tray **1100** in lower roller trough **1150**. In an example, flanges **1152** and **1153** include fastener holes (not visible) through which rail **1155** may be coupled to flanges **1152** and **1153** by way of fasteners **1156**.

(23) Referring to FIGS. **6** & **7**, appendages **1200** include end cups **1210** configured to engage first and second ends **1130** and **1140** of tray **1100** at upper trough **1160** for example by insertion therein. One or more slots **1211** may be provided to a sidewall of each end cup **1210**. Slots **1211** may be configured to receive or otherwise accept a portion of the frame of a 9″ roller. A drain opening **1212**

may be provided at a lateral end of each end cup **1210** such that when the end cups are provided to first and second ends **1130** and **1140** of tray **1100** at upper trough **1160** it is possible to access interior surface **1110** of tray **1100** along upper trough **1160** from either end. End caps **1250** may be provided to selectively close the drain openings. A knob **1251** provided to each end cap **1250** facilitates removal of the end caps from the drain openings of upper trough **1160**. To prevent loss or misplacement of end caps **1250**, leashes **1252** may be provided to tether each end cap **1250** to tray **1100** at upper trough **1160** near first and second ends **1130** and **1140**.

(24) With end cups **1210** engaging first and second ends **1130** and **1140** of tray **1100** at upper trough **1160**, vessel rails **1240** extend from each end cup **1210** in the same general direction as tabs **1166** of the second set. For example, the trajectory of rails **1240** may be such that distal ends of the rails are further from a cross-sectional center of an end cup **1210** than proximal ends of the rails are (FIGS. **5** & **6**). A channel is formed between rails **1240** and a tab **1245** projects from one of the rails into the channel.

(25) With end cups **1210** seated in upper trough **1160**, vessel rails **1240** and thereby the associated channel may be provided near each of first and second ends **1130** and **1140** of tray **1100** near lower trough **1150**. The channel is configured to engage or surround a rim of a paint vessel while tab **1245** snaps onto the rim to selectively lock appendages **1200**, and thereby organizer **1000**, to the rim. Organizer **1000** further comprising a fork **1230** provided to a distal end of vessel rails **1240** and configured to engage one or more painting applicators, accessories or related tools with one or more resilient tines. Indicia provided to a base of fork **1230** proximal of the tines may offer instruction to a user to flex appendages rails **1240** outward to disengage tab **1245** from the vessel rim.

(26) Again, referring to FIGS. **6** & **7**, organizer **1000** may further include a series of contiguous handle hooks **1220** extending from appendages **1200**. In an example, hooks **1220** open inward such that hooks **1220** of a left side appendage **1200** open towards hooks **1220** of a right side appendage **1200** and such that sides of an upright vessel loop handle may be clipped in to hooks **1220**.

(27) Organizer **1000** may further include a plurality of fasteners **1260** configured for selective receipt through aligned pairs of upper trough fastener holes (not visible) and end cup fastener holes (not visible) to set relative positions of the end cups **1210** and upper roller trough **1160** to correspond with one of a variety of vessel types. For example, end cups **1210** may be extended from upper trough **1160** slightly and fastened in position to accommodate a vessel of a larger width.

(28) Organizer **1000** may further include, mounted to tray exterior surface **1120** and configured to engage a rim of a paint vessel, a third set of one or more tabs **1300**. One or more tabs **1300** of the third set may engage the rim of the paint vessel at a location where a line tangent to the rim as viewed from above is approximately perpendicular to the rails **1240**. Each of the third set of one or more tabs **1300** may be formed with a flange **1310** on and a through-hole **1320** in one or more of tabs **1300** of the third set. One or more fasteners **1330** may be used to couple or mount tabs **1300** to exterior surface **1120** of upper trough **1160**.

(29) Referring to FIGS. **8** & **9**, in an example, organizer **1000** is provided, such as in a kit, with a number of castors **2200** suitable for mounting to a vessel **2000** to enable to vessel **2000** to be easily rolled along a support surface as the user moves around a worksite. In a further example, organizer **1000** is provided, such as in a kit, with a number of kickstands **2300** suitable for mounting to vessel **2000** or to castors **2200** to prevent tipping of vessel **2000** in the event the wheels lock up and a pushing force yields a moment on vessel **2000** about a horizontal axis. Kickstands **2300** may be suitable to limit the angle to which vessel **2000** is able to tilt.

(30) Disclosed painting caddies and/or organizers for paint applicators may be manufactured in accordance with any of a variety of methods. An example method for manufacturing includes providing a sheet of material having first, second, third and fourth edges defining interior and exterior surfaces and cutting or trimming the sheet at the first edge to form first and second sets of at least one tab. The sheet may be provided as any of a variety of malleable materials which will

also maintain a desired shape including but not limited to metals. For example, the sheet may be provided as a steel sheet. The sheet may be provided in any of a variety of thicknesses suitable to enable shaping of the sheet into a tray having various curves. In an example, the sheet is provided with a thickness of between 18 and 24 gauge or between about 0.5 mm and 1.0 mm. In a further example, the sheet may be provided as 22-gauge steel.

(31) Cutting or trimming the sheet at the first edge to form first and second sets of at least one tab may also result in the formation of a number of lateral tab slots between the tabs of the first set and the tabs of the second set and at least one tab central slot between the tabs of the second set.

(32) The sheet is bent to produce lower and upper troughs separated by a ridge, the first set of at least one tab is bent to yield first, second and third curves and the second set of at least one tab is bent to yield first and second curves. The sheet may be bent such that the exterior surface of the tray is convex at both the lower and upper troughs and the interior surface of the tray is concave at both the lower and upper troughs.

(33) The first set of at least one tab may be bent such that at least one tab extends in a first direction and such that the first curve is continuous with a curvature of the upper trough. The second set of at least one tab may be bent such that at least one tab extends in a second direction generally opposite the first direction and such that the first curve is continuous with a curvature of the upper trough.

(34) Further, the sheet may be cut to form flanges at the first and second ends of the tray in the lower roller trough and theses flanges may be bent to an angle with a longitudinal axis of the lower trough. A support rod or rail may be coupled between the flanges, for example, with two or more fasteners.

(35) The method may further include forming a third set of one or more tabs configured for mounting to the upper trough exterior surface and for engaging the rim of the paint vessel. The third set of one or more tabs may be formed with a flange to engage the rim. One or more fasteners are inserted through holes in one or more of the tabs of the third set which have been aligned with holes provided in the exterior surface of the tray at the upper trough so that the tabs are coupled with the tray.

(36) The method may further include forming first and second appendages configured for coupling in the upper trough at the respective first and second ends of the tray. The first and second appendages may be formed from any of a variety of materials suitable for molding, extruding and/or pressing into a desired form including various plastics, rubbers and combinations thereof. Suitable materials offer flexibility, resilience and elasticity for enhancing engagement with a user's painting tools. In an example, the appendages are formed from high-density polyethylene.

(37) The first and second appendages may be formed with rails surrounding at least one channel configured to engage or surround a rim of a paint vessel. The first and second appendages may each be formed with an end cup and at least one slot and a drain opening created in each end cup. The method may further include forming end caps configured to close the drain openings and each including at least one knob. A leash may be threaded through an opening in each of the end caps and the tray so that the end caps may be tethered the to the upper trough to prevent misplacement.

(38) The first and second appendages may further be formed with a fork distal from the end cups and a series of contiguous vessel handle hooks extending from the end cups.

(39) The method may further include selectively inserting a plurality of fasteners through aligned pairs of the upper roller tray fastener holes and end cup fastener holes to set relative positions of the end cups and upper roller tray to correspond with one of a variety of vessel types.

(40) Disclosed painting caddies and organizers for painting applicators may be suitable for mounting to a vessel in accordance with any of a variety of methods. Referring to FIGS. **8** & **9**, in an example method, an open-top vessel **2000** having a body **2100** and a perimeter rim **2110** is provided and an organizer is placed on the vessel. The painting organizer is placed such that disjoint channels surround and/or grip the perimeter rim **2110** at first and second distal locations thereof and a tab engages the rim at another location distal from the first and second locations. As

such, upper and lower semi-cylindrical troughs of the caddy extend generally between the first and second distal locations of the perimeter rim.
(41) Disclosed painting caddies and/or organizers for paint applicators may be suitable for use in any of a variety of methods for organizing paint applicators, accessories and/or other related tools. Again, referring to FIGS. **8** & **9**, in an example method an open-top vessel **2000** having a body **2100** and a perimeter rim **2110** is provided and the painting organizer is placed on the vessel such that disjoint channels surround and/or grip the perimeter rim at first and second distal locations thereof. A tab engages the rim at another location distal from the first and second locations and upper and lower semi-cylindrical troughs of the organizer extend, generally, between the first and second distal locations of the perimeter rim. Paint may be provided to the vessel before or after placement of the organizer on the vessel.
(42) A painting roller **2400** is pressed into the upper semi-cylindrical trough such that one or more tabs projecting from the upper trough resiliently hold the roller cover **2410** and/or painting roller **2400** thereto. A handle **2430** and frame **2420** to which the roller cover **2410** is mounted are rotated until the frame **2420** engages one or more additional tabs extending from the upper semi-cylindrical trough and snaps into place. The additional tabs resiliently fix the frame relative to the upper semi-cylindrical trough holding the roller, including roller cover and roller frame, still.
(43) A second painting roller **2500** including roller cover **2510** may be placed in the lower semi-cylindrical trough, for example, with portions of a roller frame **2520** and/or handle **2530** supported or partially supported by a rail provided along the lower trough generally between first and second ends of the tray. The lower roller trough and rail are configured to hold the roller, including the roller cover and roller frame, still. A handle **2120** of the vessel may be held in an upright position by rotating the same until it is gripped by one or more of a series of resilient hooks extending from the first and second ends of the tray at which point the handle **2120** may snap into place.
(44) Embodiments of the disclosure are susceptible to being used for various purposes, including, though not limited to, enabling users to more easily and effectively store and secure paint applicators, implements or tools to thereby enable improved workflow efficiency. Such tools include but are not limited to rollers and/or roller covers of a variety of lengths between 3 and 18 in.
(45) Modifications to embodiments of the disclosure described in the foregoing are possible without departing from the scope of the disclosure as defined by the accompanying claims. Expressions such as “including”, “comprising”, “incorporating”, “consisting of”, “have”, “is” used to describe and claim the disclosure are intended to be construed in a non-exclusive manner, namely allowing for items, components or elements not explicitly described also to be present. Reference to the singular is also to be construed to relate to the plural.

Claims

1. An organizer for paint applicators, comprising: a tray having interior and exterior surfaces extending between first and second ends and forming a lower trough exhibiting a lower curve and having a lower edge, an upper trough exhibiting an upper curve and having an upper edge and a ridge exhibiting an intermediate curve and joining the lower and upper troughs; extending from the upper edge of the upper trough in a first direction, a first set of one or more tabs exhibiting first, second and third curves; and provided to first and second ends of the tray at the upper trough and extendable relative thereto, end cups each having one or more vessel engagement appendages extending therefrom.
2. The organizer as set forth in claim 1, further comprising, extending from the upper edge of the upper tray in a second direction generally opposite the first direction, a second set of one or more tabs exhibiting first and second curves wherein the second set of one or more tabs are configured to grip a roller cradled in the upper trough.

3. The organizer as set forth in claim 2, further comprising mounted to the tray exterior surface and configured to engage a rim of a paint vessel, a third set of one or more tabs.
4. The organizer as set forth in claim 1, wherein the third curve of the tabs of the first set is configured to cradle a roller frame while an attached roller is cradled by the upper trough.
5. The organizer as set forth in claim 1, further comprising at least one channel provided near each of the tray first and second ends and configured to surround a rim of a paint vessel.
6. The organizer as set forth in claim 1, further comprising at least one vessel rim engagement channel provided in the engagement appendages.
7. The organizer as set forth in claim 1, further comprising a series of contiguous vessel handle hooks extending from the vessel engagement appendages.
8. The organizer as set forth in claim 1, wherein the exterior surface of the tray is convex at both the lower and upper troughs and the interior surface of the tray is concave at both the lower and upper troughs.
9. A painting caddy, comprising: a tray having interior and exterior surfaces extending between first and second ends and forming a lower trough exhibiting a lower curve and having a lower edge, an upper trough exhibiting an upper curve and having an upper edge and a ridge exhibiting an intermediate curve and joining the lower and upper troughs; extending from the upper edge of the upper trough in a first direction, a first set of one or more tabs exhibiting first, second and third curves; configured for engaging first and second ends of the tray at the upper trough, end cups having one or more vessel engagement appendages extending therefrom; at least one vessel rim engagement channel provided in the engagement appendages; and a series of contiguous vessel handle hooks extending from the vessel engagement appendages.
10. The painting caddy as set forth in claim 9, further comprising a vessel rim tab mounted to the exterior surface of the tray at the upper trough.