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Body worn tray for holding painting tools

Abstract

A tool support assembly for supporting paint, spackle, and other tools on a user's body includes a tray with a belt attached so that a user may support the tray by wearing the belt around the user's torso. A tube is coupled to the tray and shaped to hold a paint cup in the tube. Several other holding structures are provided for holding other tools.

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Background/Summary

(g) BACKGROUND OF THE INVENTION

(1) Field of the Invention

(1) The disclosure relates to tool support apparatuses and more particularly pertains to a new tool support apparatus for supporting paint, spackle, and other tools on a user's body.

(2) Description of Related Art Including Information Disclosed Under 37 CFR 1.97 and 1.98

(2) The prior art discloses myriad tool support apparatuses for supporting various tools on a person's body, including devices which hook paint and other tools to a user's belt and devices comprising a harness which position paint cans on the user's body. The prior art does not, however, describe a device comprising a tray that is attached to a belt for wearing around a torso of a user, and which includes a tube for supporting a paint cup therein. Such an apparatus would be advantageous, because the apparatus may be used to interchangeably insert various paint cups in the tube and provides a tray surface to set objects on. Additional features not disclosed by the prior art include a dish which is insertable into the tube to carry spackle or other objects such as fasteners, and various holding means for holding paint brushes, spackle knives, driver tools, rags, and other tools.

(h) BRIEF SUMMARY OF THE INVENTION

(3) An embodiment of the disclosure meets the needs presented above by generally comprising a tray with an upper surface. The tray has a first side and a second side positioned opposite each other across the upper surface and a third side and a fourth side positioned opposite each other across the upper surface and extending between the first and second sides. A paint support is coupled to the tray and comprises a tube extending downwardly through the tray. The tube has an open top, and an inner dimension of the tube has a size such that the tube is configured to receive a paint cup and support the paint cup on an upper edge of the tube. A belt is coupled to and forms a loop with the first side of the tray. The belt has a length such that the belt is configured to be worn around a torso of a user.

(4) There has thus been outlined, rather broadly, the more important features of the disclosure in order that the detailed description thereof that follows may be better understood, and in order that the present contribution to the art may be better appreciated. There are additional features of the disclosure that will be described hereinafter and which will form the subject matter of the claims appended hereto.

(5) The objects of the disclosure, along with the various features of novelty which characterize the disclosure, are pointed out with particularity in the claims annexed to and forming a part of this disclosure.

Description

(i) BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWING(S)

(1) The disclosure will be better understood and objects other than those set forth above will become apparent when consideration is given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

(2) FIG. 1 is a top perspective exploded view of a tool support assembly according to an

embodiment of the disclosure.

(3) FIG. 2 is a bottom perspective view of an embodiment of the disclosure.

(4) FIG. 3 is a top exploded view of an embodiment of the disclosure.

(5) FIG. 4 is a side exploded view of an embodiment of the disclosure.

(6) FIG. 5 is a top perspective assembled view of an embodiment of the disclosure.

(7) FIG. 6 is an in-use view of an embodiment of the disclosure.

(8) FIG. 7 is an in-use view of an embodiment of the disclosure.

(j) DETAILED DESCRIPTION OF THE INVENTION

(9) With reference now to the drawings, and in particular to FIGS. 1 through 7 thereof, a new tool support apparatus embodying the principles and concepts of an embodiment of the disclosure and generally designated by the reference numeral **10** will be described.

(10) As best illustrated in FIGS. 1 through 7, the tool support assembly **10** generally comprises a tray **12** with an upper surface **14**. The tray **12** has a first side **16** and a second side **18** positioned opposite each other across the upper surface **14**. The tray **12** also has a third side **20** and a fourth side **22** positioned opposite each other across the upper surface **14** and extending between the first and second sides **16**, **18**. The second side **18** is convexly arcuate to avoid unintentionally hooking the tray **12** onto obstructions.

(11) A paint support **24** is coupled to the tray **12** and comprises a tube **26** extending downwardly through the tray **12**. The tube **26** has an open top **28**, and an inner dimension of the tube **26** has a size such that the tube **26** is configured to receive a paint cup **34** and support the paint cup **34** on an upper edge **32** of the tube **26**. A portion of the tube **26** extends upwardly from the upper surface **14** of the tray **12** to retain spilled fluids from entering **44** into the tube **26** from the upper surface **14** of the tray **12**. The tube **26** has a cylindrical shape and a diameter of between 3.0 inches and 3.5 inches. The tube **26** has an open bottom **30** and is integrally formed with the tray **12**.

(12) A belt **36** is coupled to and forms a loop with the first side **16** of the tray **12**. The belt **36** has a length such that the belt **36** is configured to be worn around a torso **126** of a user **124**. The length of the belt **36** may also be adjustable through conventional means. A pair of connectors **38** is coupled to the belt **36** and the tray **12** to releasably connect the belt **36** to the tray **12**. Each connector **38** of the pair of connectors **38** is coupled to one of a pair of ends **40** of the belt **36**. Each connector **38** of the pair of connectors **38** comprises a clasp **42** and a ring **44**. The clasp **42** is coupled to the belt **36**, the ring **44** is coupled to the tray **12**, and the clasp **42** is releasably linked to the ring **44**.

(13) A hip support **46** is coupled to the tray **12** at the first side **16** and extends downwardly therefrom. The hip support **46** is positioned such that the hip support **46** is configured for engaging a body **128** of the user **124** when the belt **36** is worn around the torso **126** of the user **124** to maintain the upper surface **14** of the tray **12** in a horizontal orientation. The hip support **46** has an engagement surface **48**. The engagement surface **48** of the hip support **46** and the first side **16** of the tray **12** face a same direction and are concavely arcuate to generally conform to the body **128** of the user **124**. The hip support **46** is integrally formed with the tray **12**. A padding **50** is coupled to the first side **16** of the tray **12** and the support surface of the hip support **46**. The padding **50** comprises a compressible material such that the padding **50** is configured to cushion the body **128** of the user **124** when the hip support **46** engages the body **128**.

(14) A bottom surface **52** of the hip support **46** and a bottom edge **54** of the tube **26** of the paint support **24** lie on a same plane such that the bottom surface **52** of the hip support **46** and the bottom edge **54** of the tube **26** of the paint support **24** are configured for resting on a planar support surface and spacing the tray **12** above the planar support surface.

(15) A dish **56** is insertable into the open top **28** of the tube **26** of the paint support **24**. The dish **56** comprises an insertion member **58**, a plate **62**, and a raised edge **72**. The insertion member **58** is insertable into the tube **26**, and the plate **62** is coupled to a top end **60** of the insertion member **58**. The plate **62** extends outwardly from the insertion member **58** and has a top surface **64** configured for supporting a quantity of spackle **130**. The top surface **64** has a center portion **66** and an outer

portion **68**, wherein the outer portion **68** surrounds the center portion **66** and is angled downwardly from a circumferential edge **70** of the top surface **64** toward the center portion **66**. The raised edge **72** extends along a circumferential edge **70** of the top surface **64** of the plate **62**. The dish **56** may also be used to hold fasteners or other objects. A retainer **74** is coupled to the paint support **24** and is engageable with the insertion member **58** of the dish **56** to retain the plate **62** at a selected height above the tray **12**. The retainer **74** comprises a pair of set screws **76** extending through the tube **26** of the paint support **24**.

(16) A pair of brush holders **78** is coupled to the tray **12**. Each brush holder **78** of the pair of brush holders **78** has a perimeter wall **80** which is coupled to and extends downwardly through the tray **12** and a bottom wall **82** which is coupled to the perimeter wall **80**. The perimeter wall **80** and the bottom wall **82** define a cavity **84** therein which has a size such that the brush holder **78** is configured for holding a flat paint brush **86**. The cavity **84** may have a rectangular shape with a length of between 2.5 inches and 3.5 inches and a width of between 1.0 inch and 1.5 inches. A portion of the perimeter wall **80** extends upwardly from the upper surface **14** of the tray **12** to inhibit the spilled fluids from moving into the brush holder **78** from the upper surface **14** of the tray **12**. Each brush holder **78** of the pair of brush holders **78** is integrally formed with the tray **12**. Each brush holder **78** of the pair of brush holders **78** is positioned adjacent to and oriented parallel to an associated one of the third side **20** and fourth side **22**.

(17) A scraper holder **88** is coupled to the tray **12**, the scraper holder **88** has a peripheral wall **90** which is coupled to and extends downwardly through the tray **12** and a base wall **92** which is coupled to the peripheral wall **90**. The peripheral wall **90** and the base wall **92** define a slot **94** therein which has a size such that the scraper holder **88** is configured for insertion of a blade **98** of a spackle knife **96** such that a handle of the spackle knife **96** is supported over the slot **94**. The slot **94** may have a length of between 4.0 inches and 4.5 inches. A portion of the peripheral wall **90** extends upwardly from the upper surface **14** of the tray **12** to inhibit the spilled fluids from moving into the scraper holder **88** from the upper surface **14** of the tray **12**. The scraper holder **88** is integrally formed with the tray **12**. The scraper holder **88** is positioned between the first side **16** of the tray **12** and the paint support **24** and is oriented perpendicularly to each of the third side **20** and the fourth side **22**.

(18) A plurality of driver holders **100** is coupled to the tray **12**. Each driver holder **100** of the plurality of driver holders **100** comprises a collar **102** which is coupled to and extends downwardly through the tray **12**. An inner diameter of the collar **102** has a size such that the driver holder **100** is configured for holding a shaft **106** of a driving tool **104** such that a handle of the driving tool **104** is supported over the tray **12**. A portion of each driver holder **100** of the plurality of driver holders **100** extends upwardly from the upper surface **14** of the tray **12** to inhibit the spilled fluids from moving into the scraper holder **88** from the upper surface **14** of the tray **12**. Each driver holder **100** of the plurality of driver holders **100** is integrally formed with the tray **12**. A first pair **108** of driver holders **100** of the plurality of driver holders **100** is positioned adjacent to the third side **20** of the tray **12**, and a second pair **110** of driver holders **100** of the plurality of driver holders **100** is positioned adjacent to the fourth side **22** of the tray **12**.

(19) A lip **112** is coupled to a perimeter edge **114** of the upper surface **14** of the tray **12** and extends upwardly therefrom. The lip **112** is integrally formed with the tray **12** and retains the spilled fluids from falling from the upper surface **14** over the perimeter edge **114** of the upper surface **14**. A magnet **116** is coupled to and extends along the second side **18** of the tray **12**. The magnet **116** is configured for holding ferromagnetic tools. The magnet **116** is particularly advantageous for storing irregularly shaped tools. For example, a ferromagnetic corner drywall trowel **118** may be held on the magnet **116**. A pair of hooks **120** is also mounted to the tray **12**. Each hook **120** of the pair of hooks **120** is positioned on an associated one of the third side **20** and the fourth side **22** of the tray **12**. Each hook **120** of the pair of hooks **120** is configured for holding a rag **122**.

(20) In use, the belt **36** is worn around the torso **126** of the user **124** and the hip support **46** engages

the user's 124 body 128 to maintain the upper surface 14 of the tray 12 in the horizontal orientation. To hold paint, the paint cup 34 is filled with paint and inserted into the paint support 24. To hold the spackle 130 or other objects, the dish 56 is inserted into the paint support 24 and retained at a selected height via the retainer 74. Various tools are selectively supported by the tool support assembly 10 as further described above.

(21) With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of an embodiment enabled by the disclosure, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by an embodiment of the disclosure.

(22) Therefore, the foregoing is considered as illustrative only of the principles of the disclosure. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the disclosure to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the disclosure. In this patent document, the word "comprising" is used in its non-limiting sense to mean that items following the word are included, but items not specifically mentioned are not excluded. A reference to an element by the indefinite article "a" does not exclude the possibility that more than one of the element is present, unless the context clearly requires that there be only one of the elements.

Claims

1. A tool support assembly comprising: a tray having an upper surface, the tray having a first side and a second side positioned opposite each other across the upper surface, the tray having a third side and a fourth side positioned opposite each other across the upper surface and extending between the first and second sides; a paint support being coupled to the tray, the paint support comprising a tube extending downwardly through the tray, the tube having an open top, an inner dimension of the tube having a size such that the tube is configured to receive a paint cup and support the paint cup on an upper edge of the tube; a belt being coupled to and forming a loop with the first side of the tray, the belt having a length such that the belt is configured to be worn around a torso of a user; a dish, the dish being insertable into the open top of the tube of the paint support, the dish comprising: an insertion member being insertable into the tube; and a plate being coupled to a top end of the insertion member, the plate extending outwardly from the insertion member, the plate having a top surface configured for supporting a quantity of spackle; and a retainer being coupled to the paint support and being engageable with the insertion member of the dish to retain the plate at a selected height above the tray.
2. The assembly of claim 1, wherein the tube of the paint support has a cylindrical shape, the tube having a diameter of between 3.0 inches and 3.5 inches.
3. The assembly of claim 1, further comprising a pair of connectors being coupled to the belt and the tray to releasably connect the belt to the tray, each connector of the pair of connectors being coupled to one of a pair of ends of the belt.
4. The assembly of claim 3, wherein each connector of the pair of connectors comprises a clasp and a ring, the clasp being coupled to the belt, the ring being coupled to the tray, the clasp being releasably linked to the ring.
5. The assembly of claim 1, further comprising a hip support being coupled to the tray at the first side and extending downwardly therefrom, the hip support being positioned such that the hip support is configured for engaging a body of the user when the belt is worn around the torso of the user to maintain the upper surface of the tray in a horizontal orientation.
6. The assembly of claim 5, wherein the hip support has an engagement surface, the engagement

surface of the hip support and the first side of the tray facing a same direction, a support surface and the first side of the tray being concavely arcuate.

7. The assembly of claim 5, wherein a bottom surface of the hip support and a bottom edge of the tube of the paint support lie on a same plane such that the bottom surface of the hip support and the bottom edge of the tube of the paint support are configured for resting on a planar support surface and spacing the tray above the planar support surface.

8. The assembly of claim 5, further comprising a padding being coupled to the first side of the tray and a support surface of the hip support, the padding comprising a compressible material such that the padding is configured to cushion the body of the user when the hip support engages the body.

9. The assembly of claim 1, wherein the top surface has a center portion and an outer portion, the outer portion surrounding the center portion and being angled downwardly from a circumferential edge of the top surface toward the center portion, the dish further comprising a raised edge extending along a circumferential edge of the top surface of the plate.

10. The assembly of claim 1, wherein the retainer comprises a pair of set screws extending through the tube of the paint support.

11. The assembly of claim 1, further comprising a lip being coupled to a perimeter edge of the upper surface of the tray and extending upwardly therefrom.

12. The assembly of claim 11, further comprising a magnet being coupled to and extending along the second side of the tray, the magnet being configured for holding ferromagnetic tools.

13. The assembly of claim 1, further comprising a brush holder being coupled to the tray, the brush holder having a perimeter wall being coupled to and extending downwardly through the tray and a bottom wall being coupled to the perimeter wall, the perimeter wall and the bottom wall defining a cavity therein, the cavity having a size such that the brush holder is configured for holding a flat paint brush.

14. The assembly of claim 1, further comprising a scraper holder being coupled to the tray, the scraper holder having a peripheral wall being coupled to and extending downwardly through the tray and a base wall being coupled to the peripheral wall, the peripheral wall and the base wall defining a slot therein, the slot having a size such that the scraper holder is configured for insertion of a blade of a spackle knife such that a handle of the spackle knife is supported over the slot.

15. The assembly of claim 1, further comprising a driver holder being coupled to the tray, the driver holder comprising a collar being coupled to and extending downwardly through the tray, an inner diameter of the collar having a size such that the driver holder is configured for holding a shaft of a driving tool such that a handle of the driving tool is supported over the tray.

16. The assembly of claim 1, further comprising a hook being mounted to the tray, the hook being positioned on one of the third side and the fourth side of the tray, the hook being configured for holding a rag.

17. The assembly of claim 1, wherein the tube of the paint support has an open bottom.

18. A tool support assembly comprising: a tray having an upper surface, the tray having a first side and a second side positioned opposite each other across the upper surface, the tray having a third side and a fourth side positioned opposite each other across the upper surface and extending between the first and second sides, the first side being concavely arcuate, the second side being convexly arcuate; a paint support being coupled to the tray, the paint support comprising a tube extending downwardly through the tray, the tube having an open top, a portion of the tube extending upwardly from the upper surface of the tray, an inner dimension of the tube having a size such that the tube is configured to receive a paint cup and support the paint cup on an upper edge of the tube, the tube having a cylindrical shape, the tube having a diameter of between 3.0 inches and 3.5 inches, the tube having an open bottom, the paint support being integrally formed with the tray; a belt being coupled to and forming a loop with the first side of the tray, the belt having a length such that the belt is configured to be worn around a torso of a user; a pair of connectors being coupled to the belt and the tray to releasably connect the belt to the tray, each connector of the pair

of connectors being coupled to one of a pair of ends of the belt, each connector of the pair of connectors comprising a clasp and a ring, the clasp being coupled to the belt, the ring being coupled to the tray, the clasp being releasably linked to the ring; a hip support being coupled to the tray at the first side and extending downwardly therefrom, the hip support being positioned such that the hip support is configured for engaging a body of the user when the belt is worn around the torso of the user to maintain the upper surface of the tray in a horizontal orientation, the hip support having an engagement surface, the engagement surface of the hip support and the first side of the tray facing a same direction, the support surface being concavely arcuate, a bottom surface of the hip support and a bottom edge of the tube of the paint support lying on a same plane such that the bottom surface of the hip support and the bottom edge of the tube of the paint support are configured for resting on a planar support surface and spacing the tray above the planar support surface, the hip support being integrally formed with the tray; a padding being coupled to the first side of the tray and the support surface of the hip support, the padding comprising a compressible material such that the padding is configured to cushion the body of the user when the hip support engages the body; a dish, the dish being insertable into the open top of the tube of the paint support, the dish comprising: an insertion member being insertable into the tube; a plate being coupled to a top end of the insertion member, the plate extending outwardly from the insertion member, the plate having a top surface configured for supporting a quantity of spackle, the top surface having a center portion and an outer portion, the outer portion surrounding the center portion and being angled downwardly from a circumferential edge of the top surface toward the center portion; and a raised edge extending along a circumferential edge of the top surface of the plate; a retainer being coupled to the paint support and being engageable with the insertion member of the dish to retain the plate at a selected height above the tray, the retainer comprising a pair of set screws extending through the tube of the paint support; a lip being coupled to a perimeter edge of the upper surface of the tray and extending upwardly therefrom, the lip being integrally formed with the tray; a pair of brush holders being coupled to the tray, each brush holder of the pair of brush holders having a perimeter wall being coupled to and extending downwardly through the tray and a bottom wall being coupled to the perimeter wall, the perimeter wall and the bottom wall defining a cavity therein, the cavity having a size such that the brush holder is configured for holding a flat paint brush, a portion of the perimeter wall extending upwardly from the upper surface of the tray, each brush holder of the pair of brush holders being integrally formed with the tray, each brush holder of the pair of brush holders being positioned adjacent to and oriented parallel to an associated one of the third side and fourth side; a scraper holder being coupled to the tray, the scraper holder having a peripheral wall being coupled to and extending downwardly through the tray and a base wall being coupled to the peripheral wall, the peripheral wall and the base wall defining a slot therein, the slot having a size such that the scraper holder is configured for insertion of a blade of a spackle knife such that a handle of the spackle knife is supported over the slot, a portion of the peripheral wall extending upwardly from the upper surface of the tray, the scraper holder being integrally formed with the tray, the scraper holder being positioned between the first side of the tray and the paint support, the scraper holder being oriented perpendicularly to each of the third side and the fourth side; a plurality of driver holders being coupled to the tray, each driver holder of the plurality of driver holders comprising a collar being coupled to and extending downwardly through the tray, an inner diameter of the collar having a size such that the driver holder is configured for holding a shaft of a driving tool such that a handle of the driving tool is supported over the tray, each driver holder of the plurality of driver holders being integrally formed with the tray, a first pair of driver holders of the plurality of driver holders being positioned adjacent to the third side of the tray, a second pair of driver holders of the plurality of driver holders being positioned adjacent to the fourth side of the tray; a magnet being coupled to and extending along the second side of the tray, the magnet being configured for holding ferromagnetic tools; and a pair of hooks being mounted to

the tray, each hook of the pair of hooks being positioned on an associated one of the third side and the fourth side of the tray, each hook of the pair of hooks being configured for holding a rag.
