



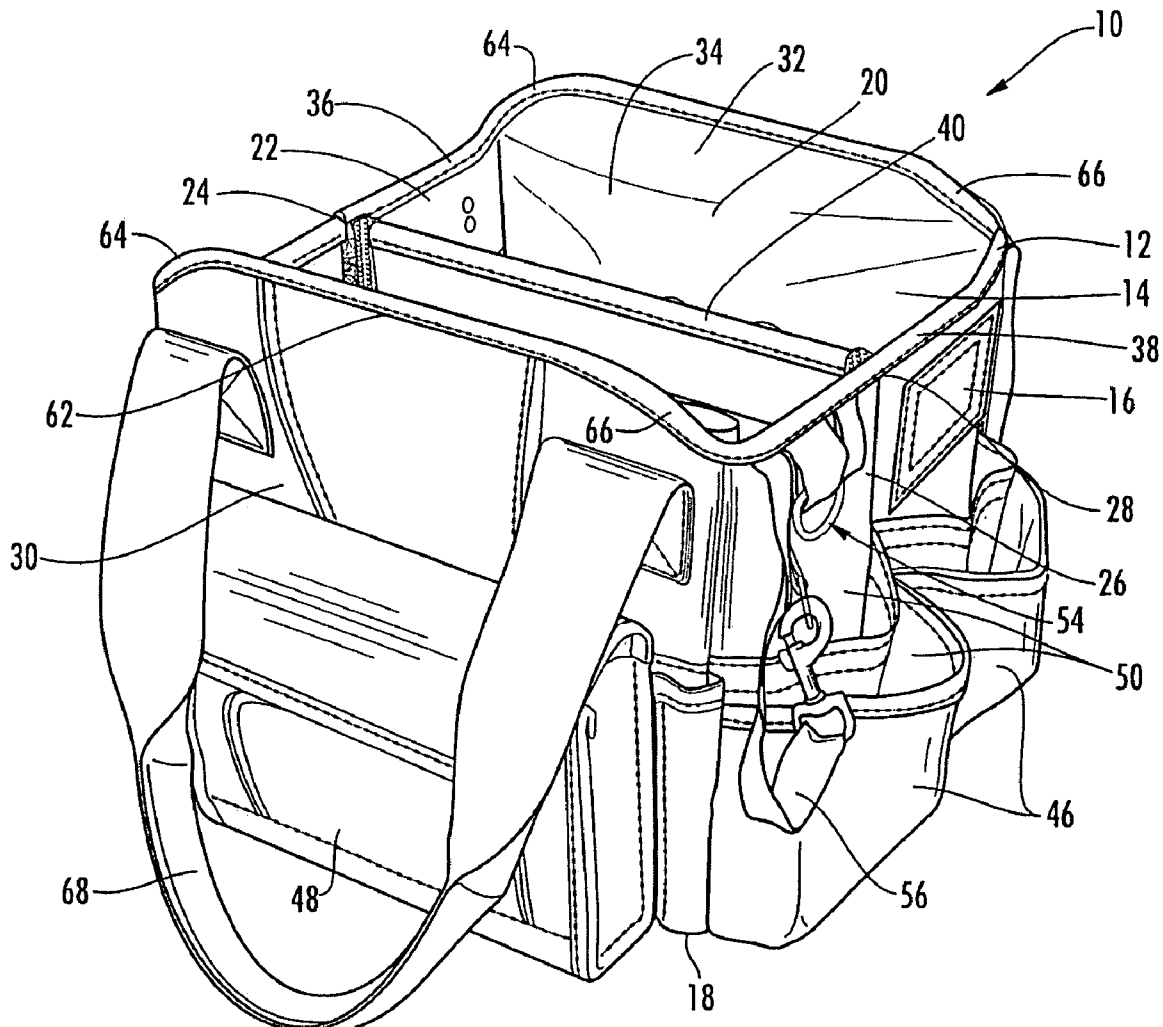
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(19) **United States**(12) **Patent Application Publication**
Williams(10) **Pub. No.: US 2008/0179370 A1**(43) **Pub. Date: Jul. 31, 2008**(54) **ELECTRICIAN'S BAG****Publication Classification**(75) Inventor: **Matthew G. Williams**, Lighthouse
Point, FL (US)(51) **Int. Cl.**
A45F 5/00 (2006.01)(52) **U.S. Cl.** **224/682; 224/191**(57) **ABSTRACT**

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FL (US)(21) Appl. No.: **12/022,562**(22) Filed: **Jan. 30, 2008****Related U.S. Application Data**(60) Provisional application No. 60/887,479, filed on Jan.
31, 2007.

An electrician tool bag configured to retain tools in a readily accessible manner. In particular, the electrician tool bag may be formed from a tool bag body defining a main compartment formed from a plurality of outer sidewalls and a bottom wall. The electrician tool bag may include a support structure that maintains the sidewalls in a generally erect position in which the main compartment maintains an opening opposite to the bottom wall. The electrician tool bag may include a first sidewall having a first breakline about which the first sidewall is foldable and a second sidewall that is opposite to the first sidewall includes a second breakline about which the first sidewall is foldable thereby enabling the first and second sidewalls to be folded to reduce the size of the main compartment by moving third and fourth sidewalls toward each other.



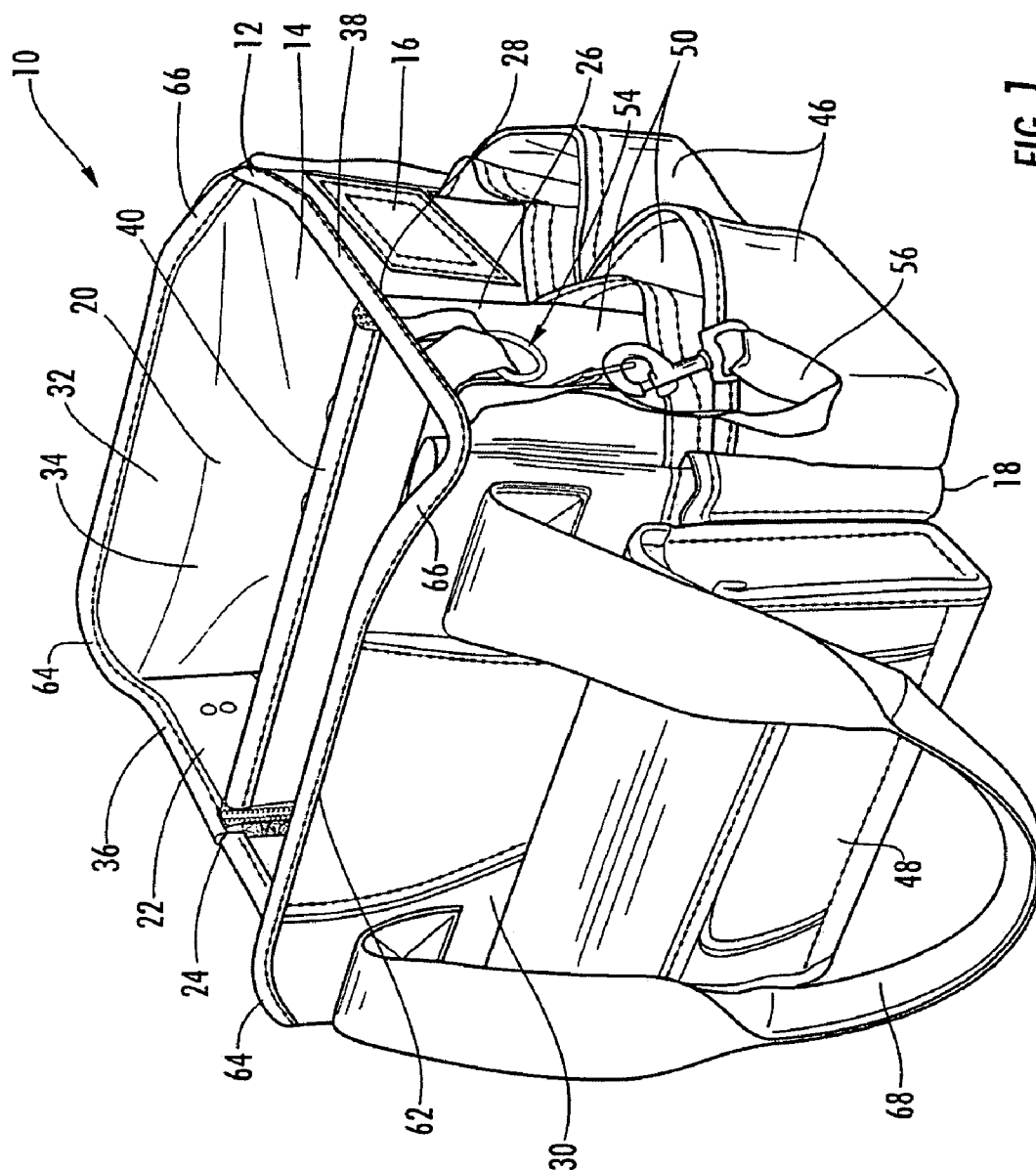


FIG. 1

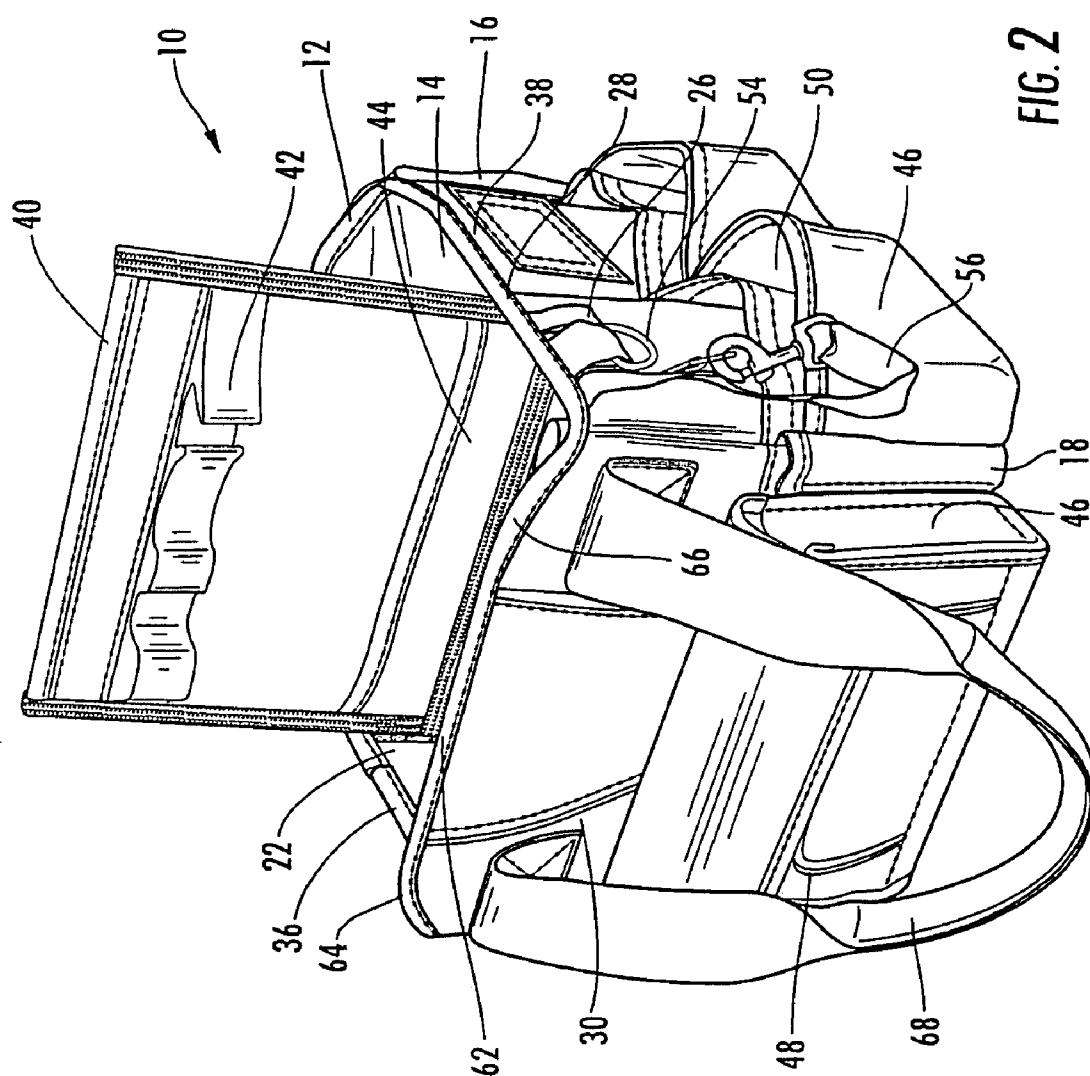


FIG. 2

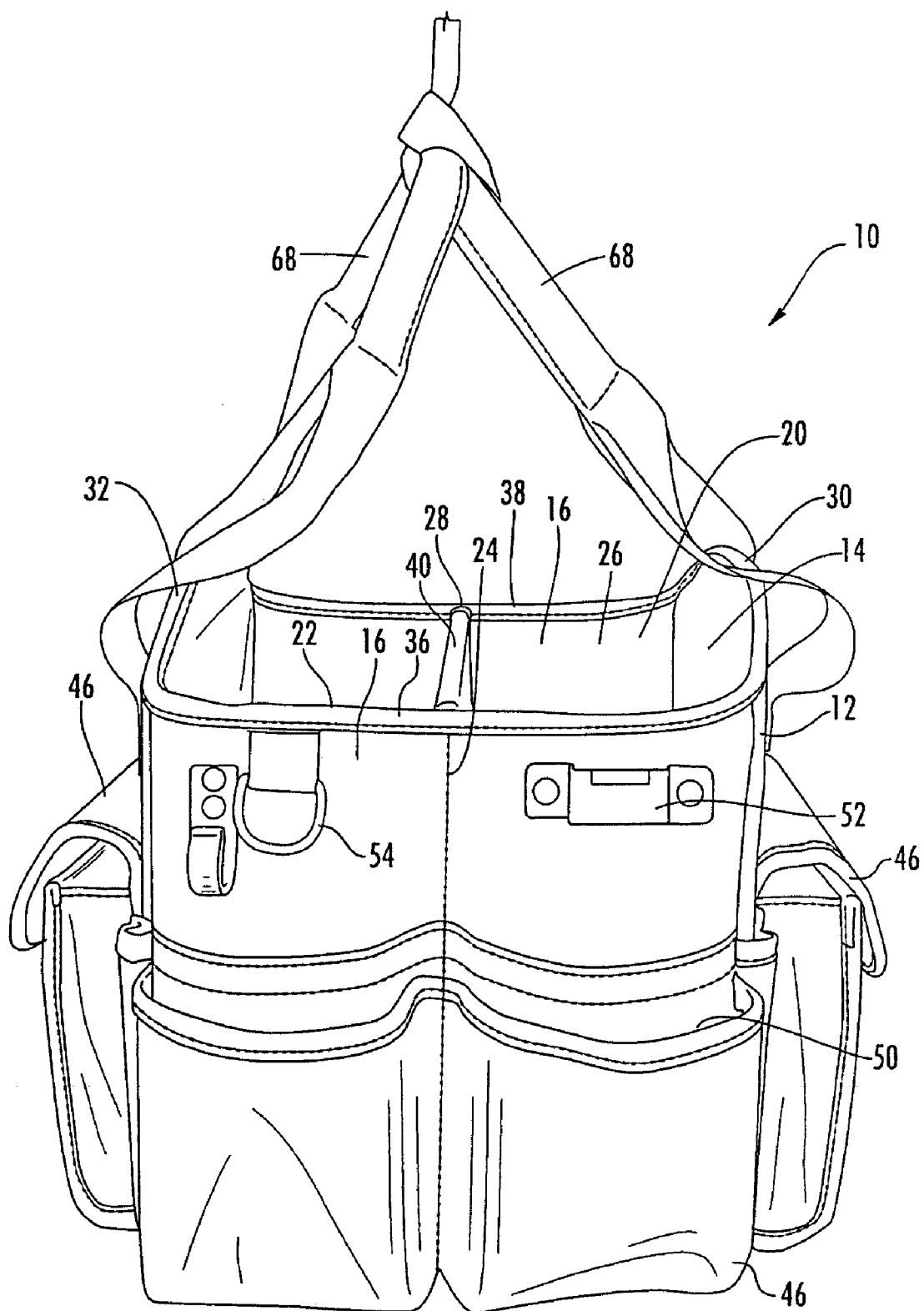


FIG. 3

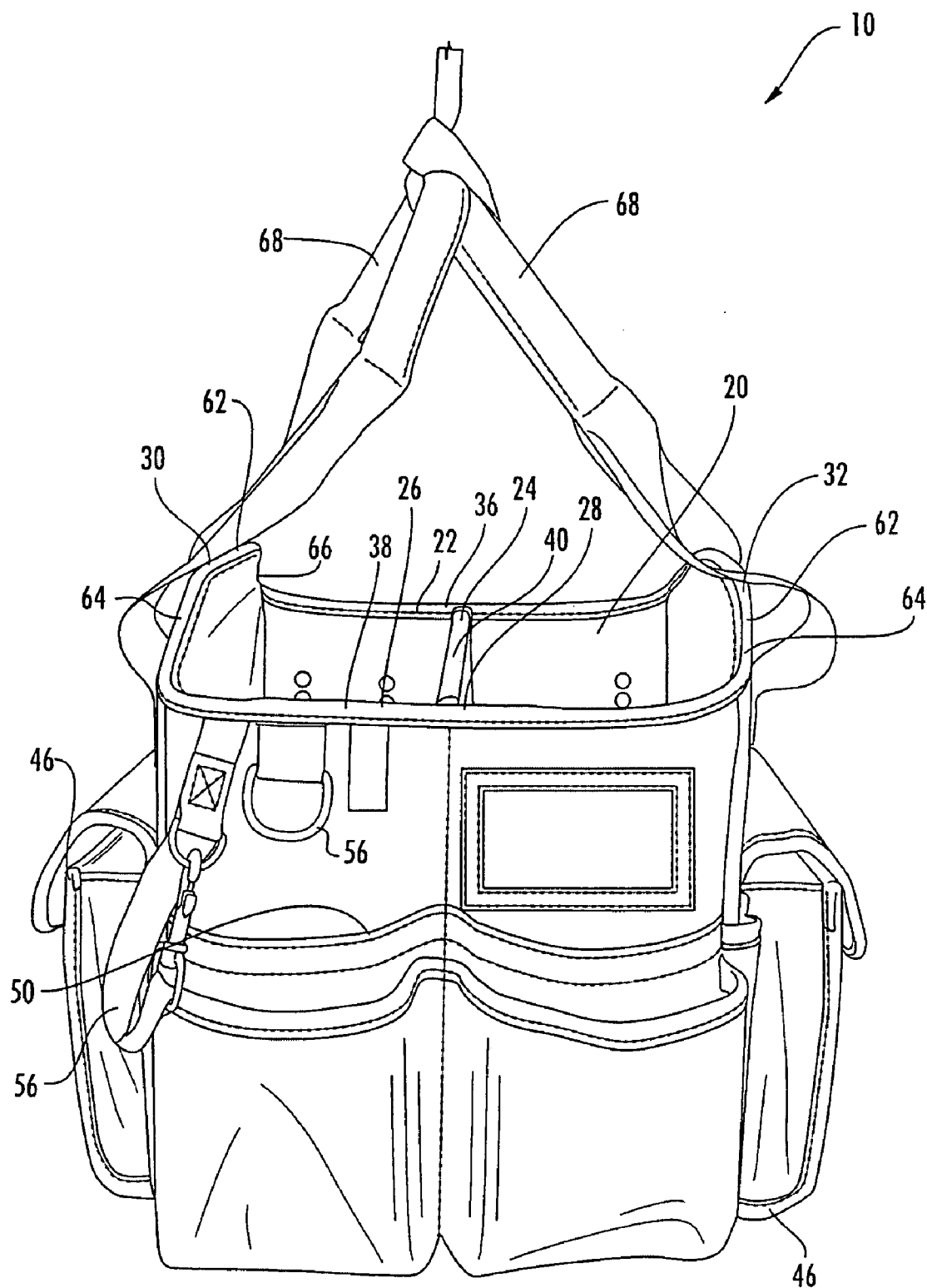


FIG. 4

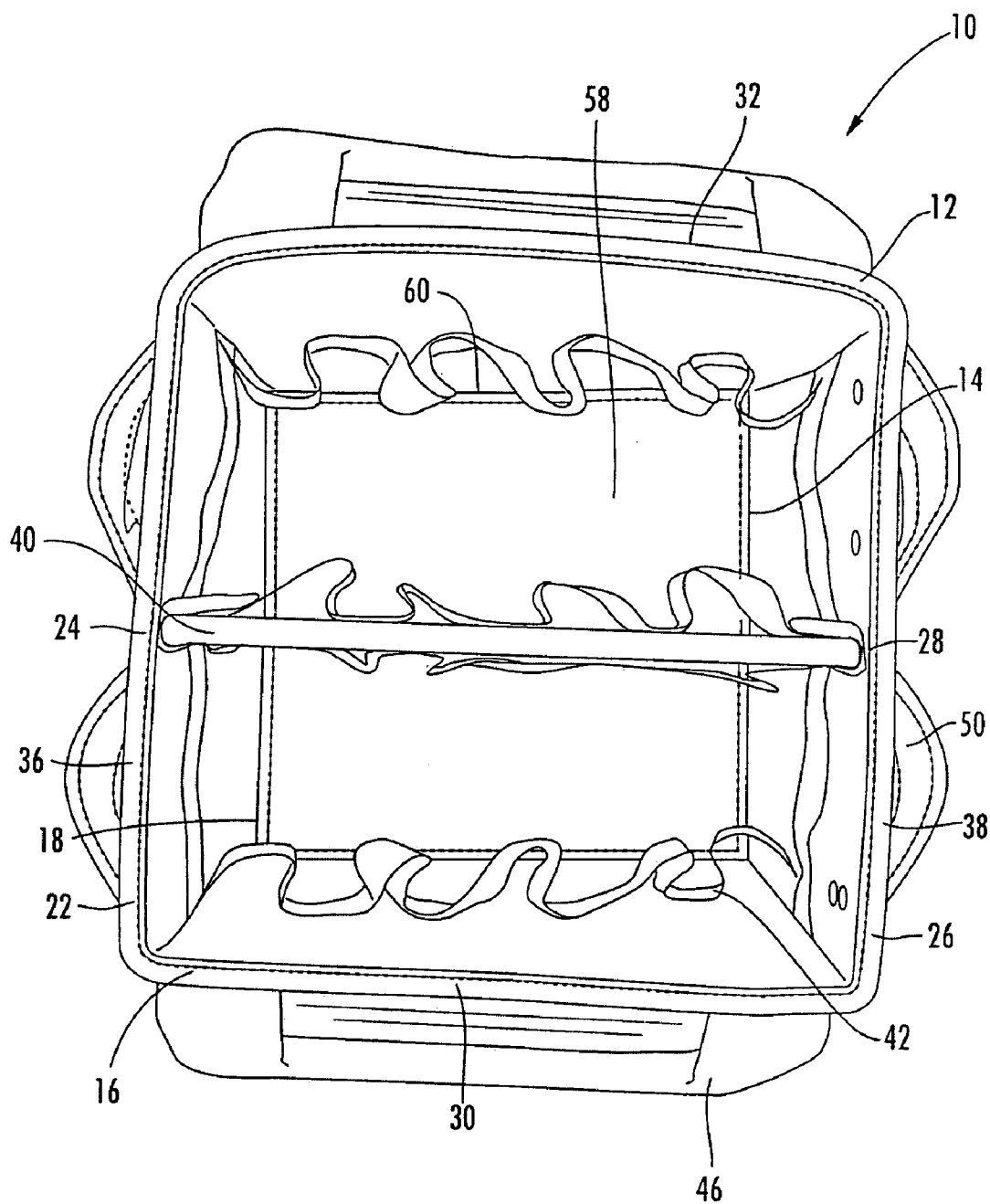


FIG. 6

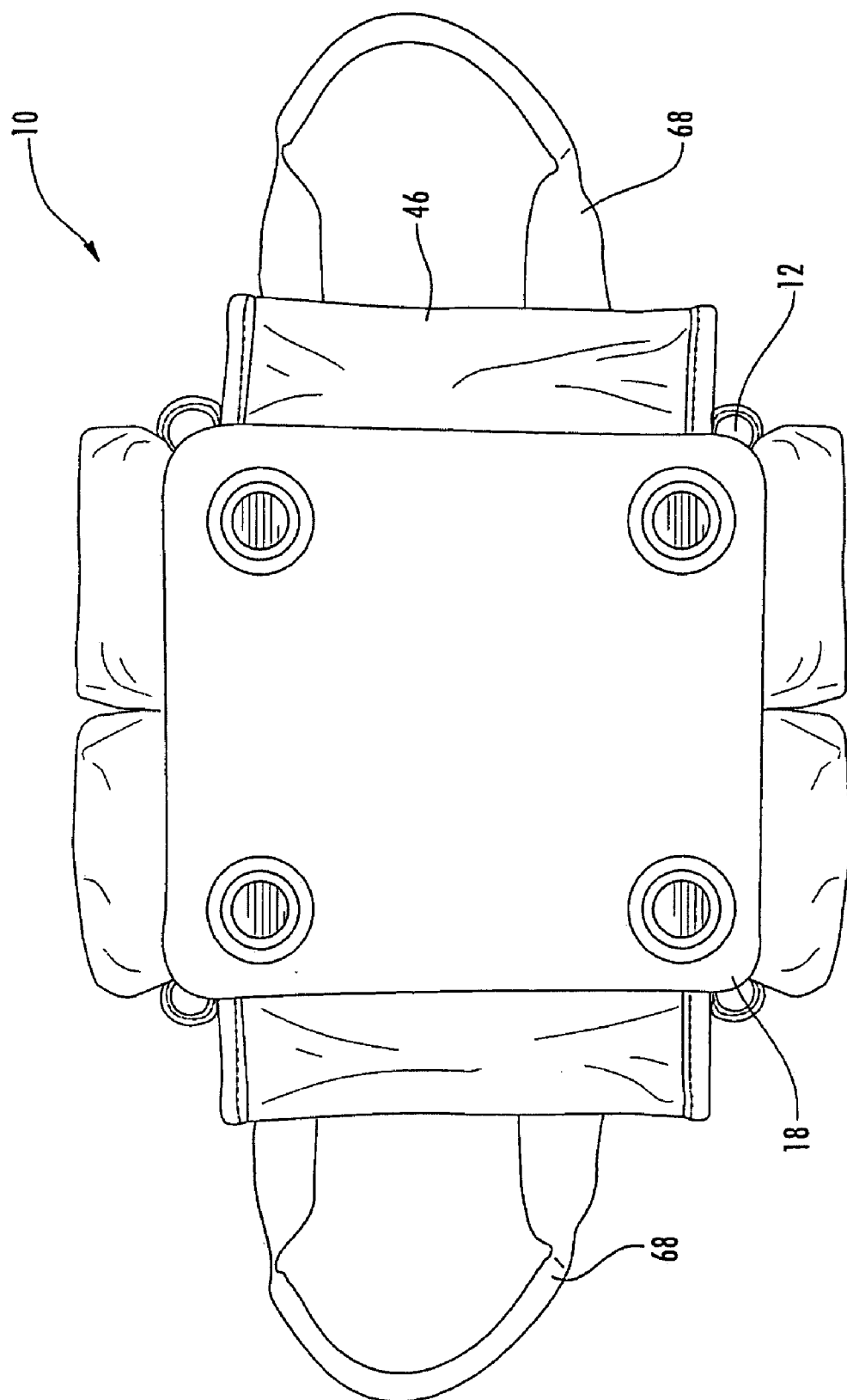


FIG. 7

ELECTRICIAN'S BAG**CROSS REFERENCE TO RELATED APPLICATION**

[0001] This application claims the benefit of U.S. Provisional Application No. 60/887,479, filed Jan. 31, 2007.

FIELD OF THE INVENTION

[0002] This invention is directed generally to a tradesman's tool bag, and more particularly to a tool bag configured to organize and contain tools commonly used by electricians.

BACKGROUND

[0003] Tradesman have typically used many different devices to contain their tools. Some of these devices include metal tool boxes, wooden tool boxes, five gallon buckets and other such devices. While the rigidity and ruggedness of these devices has proved useful for the rough environment in which these devices are used, these devices lack individualized compartments. In addition, the rigid devices are often not easy to store within vehicles and other areas because of the rigidity. Thus, an improved tradesman tool system is needed.

SUMMARY OF THE INVENTION

[0004] This invention is directed to an electrician tool bag configured to retain tools in a readily accessible manner. In particular, the electrician tool bag may be formed from a tool bag body defining a main compartment formed from a plurality of outer sidewalls and a bottom wall that is generally orthogonal to the outer sidewalls. The outer sidewalls may form a rectangular structure, and, in at least one embodiment, may form a square structure. The electrician tool bag may include a support structure within the tool bag body that maintains the sidewalls in a generally erect position in which the main compartment maintains an opening opposite to the bottom wall. The electrician tool bag may include a first sidewall that includes a first breakline about which the first sidewall is foldable. The electrician tool bag may also include a second sidewall that is opposite to the first sidewall and includes a second breakline about which the first sidewall is foldable thereby enabling the first and second sidewalls to be folded to reduce the size of the main compartment by moving third and fourth sidewalls that separate the first and second sidewalls toward each other. The flexibility of the electrician tool bag to reduce the size of the main compartment enables a greater number of electrician tool bags to be packed in a shipping box and reduces the amount of costly shelf space needed for the electrician tool bag.

[0005] The first breakline may be positioned generally at a midpoint of the first sidewall and may extend generally from an intersection of the first sidewall and the bottom wall to an upper edge of the first sidewall. The second breakline may be positioned generally at a midpoint of the second sidewall and extends generally from an intersection of the second sidewall and the bottom wall to an upper edge of the second sidewall. The bottom wall may be flexible thereby enabling the bottom wall to be folded when the first and second sidewalls are folded to reduce the size of the main compartment. The support structure in the tool bag may be a plurality of rigid boards that retain a planar configuration and wherein each of the outer sidewalls may include at least one rigid board attached to the outer sidewall.

[0006] The electrician tool bag may also include a removable compartment wall in the main compartment. The removable compartment wall may be attached to the sidewalls forming the main compartment with hook and loop connectors. The removable compartment wall may include a PE board and bamboo. A plurality of exterior compartments may extend outwardly from an outer surface of the outer sidewalls. The exterior compartments may be formed from double layers of fabric.

[0007] The tool bag may be formed from four outer sidewalls, wherein first and second sidewalls are positioned opposite each other and third and fourth sidewalls are positioned opposite each other and generally orthogonal to the first and second sidewalls, wherein the first and second sidewalls are shorter than the third and fourth sidewalls. The first and second sidewalls may be formed from rigid boards formed of fabric covered three millimeter PE boards, and the third and fourth sidewalls may be formed from rigid boards formed from fabric covered two millimeter PE boards.

[0008] The electrician tool bag may also include a bottom support wall that is attached to the tool bag body at an intersection between an outer sidewall and the bottom wall, thereby permitting the bottom support wall to be pivoted relative to the intersection to place the bottom support wall in a support position in which the bottom support wall is generally aligned with the bottom wall and in a collapsible position in which the bottom support wall extends generally orthogonal from the bottom wall, thereby permitting the main compartment to be reduced. The bottom support wall may be formed from a fabric covered 1.5 millimeter PE board. The third and fourth sidewalls may each have an upper edge that is generally aligned with the bottom wall of the tool bag and may include tapered corners forming a three-sided upper edge.

[0009] An advantage of the electrician tool bag is that the sides are rigid yet include breaklines enabling the electrician tool bag to be folded for easier storage, shipping, and display while on sale.

[0010] Another advantage of the electrician tool bag is that the tool bag includes a removable compartment wall in the main compartment that enables the size of the main compartment to be customized.

[0011] These and other advantages and components will be described below.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The accompanying drawings, which are incorporated in and form a part of the specification, illustrate embodiments of the presently disclosed invention and, together with the description, disclose the principles of the invention.

[0013] FIG. 1 is a perspective view of an electrician tool bag with aspects of the invention.

[0014] FIG. 2 is an exploded perspective view of the electrician tool bag shown in FIG. 1.

[0015] FIG. 3 is a left side view of the electrician tool bag.

[0016] FIG. 4 is a right side view of the electrician tool bag.

[0017] FIG. 5 is a rear view of the electrician tool bag.

[0018] FIG. 6 is a top view of the electrician tool bag.

[0019] FIG. 7 is a bottom view of the electrician tool bag.

DETAILED DESCRIPTION OF THE INVENTION

[0020] As shown in FIGS. 1-7, this invention is directed to an electrician tool bag 10 configured to retain tools in a

readily accessible manner. In particular, the electrician tool bag 10 may be formed from a tool bag body 12 defining a main compartment 14 formed from a plurality of outer sidewalls 16 and a bottom wall 18 that is generally orthogonal to the outer sidewalls 16. The outer sidewalls 16 may form a rectangular structure, and, in at least one embodiment, may form a square structure. The electrician tool bag 10 may include a support structure 34 within the tool bag body 12 that maintains the sidewalls 16 in a generally erect position in which the main compartment 14 maintains an opening 20 opposite to the bottom wall 18. The electrician tool bag 10 may include a first sidewall 22 that includes a first breakline 24 about which the first sidewall 22 is foldable. The electrician tool bag 10 may also include a second sidewall 26 that is opposite to the first sidewall 22 and includes a second breakline 28 about which the second sidewall 26 is foldable thereby enabling the first and second sidewalls 22, 26 to be folded to reduce the size of the main compartment 14 by moving third and fourth sidewalls 30, 32 that separate the first and second sidewalls 22, 26 toward each other. The flexibility of the electrician tool bag 10 to reduce the size of the main compartment 14 enables a greater number of electrician tool bags 10 to be packed in a shipping box and reduces the amount of costly shelf space needed for the electrician tool bag 10.

[0021] The electrician tool bag 10 may be formed from one or more layers of a fabric. For instance, the electrician tool bag 10 may be formed from a durable fabric such as, but not limited to, CORDURA, SPUNTUFF, and other appropriate fabrics. The multiple layers of fabric may be stitched, welded, or attached together through other appropriate manners. The tool bag body 12 may be constructed such that the fabric layers form the outer surfaces of the electrician tool bag 10 and enclose the support structure 34.

[0022] As shown in FIGS. 1 and 2, the electrician tool bag 10 may be formed from four outer sidewalls 16. In particular, the outer sidewalls 16 may be formed from a first sidewall 22 that is opposite to a second sidewall 26. The outer sidewalls 16 may also include third and fourth sidewalls 30, 32 that are opposite to each other and generally orthogonal to the first and second sidewalls 22, 26. The first sidewall 22 may be attached to the third and fourth sidewalls 30, 32, and the second sidewall 26 may be attached to the third and fourth sidewalls 30, 32 or opposite to the first sidewall 22. One or more of the outer sidewalls 16 may include portions of the support structure 34. In at least one embodiment, the support structure 34 may be rigid boards that retain a planar configuration. One or more of the outer sidewalls 16 may be formed from an inner fabric layer, an outer fabric layer, and a rigid board positioned between the inner and outer fabric layers. The support members may be formed from materials, such as, but not limited to, a polyethylene (PE) board, such as, but not limited to, a high density polyethylene (HDPE) board. In one embodiment, the first and second sidewalls 22, 26 may be formed from rigid boards formed of fabric covered three millimeter thick PE boards, and the third and fourth sidewalls 30, 32 may be formed from rigid boards formed from fabric covered two thick millimeter PE boards.

[0023] As shown in FIGS. 1, 3 and 4, the first sidewall 22 may include the first breakline 24. The first breakline 24 may extend from an intersection of the first sidewall 22 and the bottom wall 18 to an upper edge 36 of the first sidewall 22. The first breakline 24 may be positioned at a midpoint of the first sidewall 22. The first breakline 24 may be formed from fabric and may be a break in the support structure 34 con-

tained in the fabric forming the first sidewall 22. For instance, the first sidewall 22 may be formed from layers of fabric covering two boards. The boards may be aligned with each other and separated by a small gap that forms the first breakline 24. Similarly, the second breakline 28 may extend from an intersection of the second sidewall 26 and the bottom wall 18 to an upper edge 38 of the second sidewall 26. The second breakline 28 may be positioned at a midpoint of the second sidewall 26. The second sidewall 26 may be formed from fabric and may be a break in the support structure 34 contained in the fabric forming the second sidewall 26. For instance, the second sidewall 26 may be formed from layers of fabric covering two boards. The boards may be aligned with each other and separated by a small gap that forms the second breakline 28. The bottom wall 18 may be formed from fabric that is flexible that enables the third and fourth sidewalls 30, 32 to be moved toward each other to reduce the size of the main compartment 14.

[0024] As shown in FIG. 2, the electrician tool bag 10 may include a removable compartment wall 40 in the main compartment 14. The removable compartment wall 40 may act as a divider to divide the main compartment 14 to organize tools. The removable compartment wall 40 may be removably attached to the sidewalls 16 forming the main compartment 14 with devices such as, but not limited to, hook and loop connectors and other appropriate connectors. The hook and loop connectors may be attached to side and bottom edges of the removable compartment wall 40. The removable compartment wall 40 may be formed from a fabric covered board. The removable compartment wall 40 may also include one or more tool loops 42 and a tool pouch 44. In one embodiment, the removable compartment wall 40 may be formed from a PE board or bamboo, or a combination of both. The PE board may be about 1.5 millimeters in thickness. Inner surfaces of the main compartment 14 may also include tool loops 42.

[0025] As shown in FIGS. 1-6, the electrician tool bag 10 may include one or more exterior compartments 46 extending outwardly from an outer surface of the outer sidewalls 16. In one embodiment, each side of the electrician tool bag 10 may include exterior compartments 46 protruding from the electrician tool bag 10. In one embodiment, the first and second sidewalls 22, 26 each may include a single exterior compartment 46 with a lid. The single exterior compartments 46 may also include a logo display panel 48 that may include an embroidered logo. The third and fourth sidewalls 30, 32 may include a plurality of exterior compartments 46. In particular, the third and fourth sidewalls 30, 32 may each include a first row of two compartments attached to the sidewalls 30, 32 and a second row of two compartments attached to an outer surface of the first row of compartments. The exterior compartments 46 may be constructed from double layers of fabric. In addition, the exterior compartments 46 may be constructed such that a length of the fabric used to create each compartment 46 is longer than a distance between points of attachment of the fabric, thereby causing openings 50 of the exterior compartments 46 to stand open. As shown in FIGS. 2 and 3, the electrician tool bag 10 may also include other attachment implements, such as, a tape measure connector 52, a D-ring 54, a releasable snap loop 56, and other appropriate implements.

[0026] As shown in FIG. 6, the electrician tool bag 10 may further include a bottom support wall 58 that is attached to the tool bag body at an intersection 60 between an outer sidewall 16 and the bottom wall 18, thereby permitting the bottom

support wall **58** to be pivoted relative to the intersection **60**. The bottom support wall **58** may be rigid and may be formed from a fabric covered 1.5 millimeter PE board. The bottom support wall **58** may be moved between a support position in which the bottom support wall **58** is generally aligned with the bottom wall **18** and a collapsible position in which the bottom support wall **58** extends generally orthogonal from the bottom wall **18**, thereby permitting the size of the main compartment **14** to be reduced by moving the third and fourth sidewalls **30, 32** towards each other. When the bottom support wall **58** is moved into the downward position that is generally aligned with the bottom wall **18**, the bottom support wall **58** forms a rigid bottom surface for the main compartment **14**.

[0027] As shown in FIG. 1, the third and fourth sidewalls **30, 32** may each have an upper edge **62** that is generally aligned with the bottom wall **18** of the tool bag **10** and includes tapered corners **64, 66** forming a three-sided upper edge. Handles **68** may be attached to the third and fourth sidewalls **30, 32** proximate to the upper edges **62** of the third and fourth sidewalls **30, 32**. The handles **68** may be formed from a fabric. The handles **68** may also include a portion in the middle of the handles **68** in which the fabric is folded onto itself and wrapped around a cushion material for comfort while carrying the tool bag **10**.

[0028] The foregoing is provided for purposes of illustrating, explaining, and describing embodiments of this invention. Modifications and adaptations to these embodiments will be apparent to those skilled in the art and may be made without departing from the scope or spirit of this invention.

I claim:

1. An electrician tool bag, comprising:
a tool bag body defining a main compartment formed from a plurality of outer sidewalls and a bottom wall that is generally orthogonal to the outer sidewalls;
a support structure included within the tool bag body that maintains the sidewalls in a generally erect position in which the main compartment maintains an opening opposite to the bottom wall;
wherein a first sidewall includes a first breakline about which the first sidewall is foldable and a second sidewall that is opposite to the first sidewall includes a second breakline about which the first sidewall is foldable thereby enabling the first and second sidewalls to be folded to reduce the size of the main compartment by moving third and fourth sidewalls that separate the first and second sidewalls toward each other.
2. The electrician tool bag of claim 1, wherein the first breakline is positioned generally at a midpoint of the first sidewall and extends generally from an intersection of the first sidewall and the bottom wall to an upper edge of the first sidewall.
3. The electrician tool bag of claim 2, wherein the second breakline is positioned generally at a midpoint of the second sidewall and extends generally from an intersection of the second sidewall and the bottom wall to an upper edge of the second sidewall.
4. The electrician tool bag of claim 1, wherein the bottom wall is flexible thereby enabling the bottom wall to be folded when the first and second sidewalls are folded to reduce the size of the main compartment.
5. The electrician tool bag of claim 1, wherein the support structure in the tool bag is a plurality of rigid boards that retain a planar configuration and wherein each of the outer sidewalls includes at least one rigid board attached to the outer sidewall.

6. The electrician tool bag of claim 1, further comprising a removable compartment wall in the main compartment.

7. The electrician tool bag of claim 6, wherein the removable compartment wall is attached to the sidewalls forming the main compartment with hook and loop connectors.

8. The electrician tool bag of claim 1, wherein the removable compartment wall further comprises a PE board and bamboo.

9. The electrician tool bag of claim 1, further comprising a plurality of exterior compartments extending outwardly from an outer surface of the outer sidewalls.

10. The electrician tool bag of claim 9, wherein exterior compartments are formed from double layers of fabric.

11. The electrician tool bag of claim 1, wherein the tool bag is formed from four outer sidewalls, wherein first and second sidewalls are positioned opposite each other and third and fourth sidewalls are positioned opposite each other and generally orthogonal to the first and second sidewalls, wherein the first and second sidewalls are shorter than the third and fourth sidewalls.

12. The electrician tool bag of claim 11, wherein the first and second sidewalls are formed from rigid boards formed of fabric covered three millimeter PE boards, and wherein the third and fourth sidewalls are formed from rigid boards formed from fabric covered two millimeter PE boards.

13. The electrician tool bag of claim 12, further comprising a bottom support wall that is attached to the tool bag body at an intersection between an outer sidewall and the bottom wall, thereby permitting the bottom support wall to be pivoted relative to the intersection to place the bottom support wall in a support position in which the bottom support wall is generally aligned with the bottom wall and in a collapsible position in which the bottom support wall extends generally orthogonal from the bottom wall, thereby permitting the main compartment to be reduced.

14. The electrician tool bag of claim 13, wherein the bottom support wall is formed from a fabric covered 1.5 millimeter PE board.

15. The electrician tool bag of claim 11, wherein the third and fourth sidewalls each have an upper edge that is generally aligned with the bottom wall of the tool bag and includes tapered corners forming a three-sided upper edge.

16. An electrician tool bag, comprising:

a tool bag body defining a main compartment formed from a plurality of outer sidewalls and a bottom wall that is generally orthogonal to the outer sidewalls;

a support structure included within the tool bag body that maintains the sidewalls in a generally erect position in which the main compartment maintains an opening opposite to the bottom wall;

wherein a first sidewall includes a first breakline about which the first sidewall is foldable and a second sidewall that is opposite to the first sidewall includes a second breakline about which the first sidewall is foldable thereby enabling the first and second sidewalls to be folded to reduce the size of the main compartment by moving third and fourth sidewalls that separate the first and second sidewalls toward each other;

wherein the bottom wall is flexible thereby enabling the bottom wall to be folded when the first and second sidewalls are folded to reduce the size of the main compartment;

a removable compartment wall in the main compartment; and

a bottom support wall that is attached to the tool bag body at an intersection between an outer sidewall and the bottom wall, thereby permitting the bottom support wall to be pivoted relative to the intersection to place the bottom support wall in a support position in which the bottom support wall is generally aligned with the bottom wall and in a collapsible position in which the bottom support wall extends generally orthogonal from the bottom wall, thereby permitting the main compartment to be reduced.

17. The electrician tool bag of claim **16**, wherein the first breakline is positioned generally at a midpoint of the first sidewall and extends generally from an intersection of the first sidewall and the bottom wall to an upper edge of the first sidewall, and the second breakline is positioned generally at a

midpoint of the second sidewall and extends generally from an intersection of the second sidewall and the bottom wall to an upper edge of the second sidewall.

18. The electrician tool bag of claim **16**, wherein the tool bag is formed from four outer sidewalls, wherein first and second sidewalls are positioned opposite each other and third and fourth sidewalls are positioned opposite each other and generally orthogonal to the first and second sidewalls, wherein the first and second sidewalls are shorter than the third and fourth sidewalls.

19. The electrician tool bag of claim **16**, wherein the third and fourth sidewalls each have an upper edge that is generally aligned with the bottom wall of the tool bag and includes tapered corners forming a three-sided upper edge.

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