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Deck storage box

Abstract

A deck box includes individual panels and a lid that are able to be assembled to one another without the need for external hardware. A bottom panel is connected to a pair of side panels. The side panels are provided with guides or rails that extend toward the bottom panel. Front and rear panels are provided with guides or rails so that each of the front and rear panel can assemble to and between the side panels, sliding into engagement in a direction toward the bottom panel. A lid has an integrally-molded hinge member that engages with an integrally-molded hinge member of the rear panel.

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References Cited

U.S. PATENT DOCUMENTS

Patent No.	Issued Date	Patentee Name	U.S. Cl.	CPC
4466541	12/1983	Tabler et al.	N/A	N/A
5012943	12/1990	King	N/A	N/A
5816425	12/1997	Keip	N/A	N/A
6497018	12/2001	Chiu et al.	N/A	N/A
6701573	12/2003	Ciavarella et al.	N/A	N/A
7028859	12/2005	Moon et al.	N/A	N/A
8689992	12/2013	Anderson et al.	N/A	N/A
8875939	12/2013	Phillips et al.	N/A	N/A
D723803	12/2014	Thuma et al.	N/A	N/A
9398806	12/2015	Mitchell	N/A	N/A
2004/0124191	12/2003	Colladon	N/A	N/A
2004/0200832	12/2003	Moon	N/A	N/A
2017/0342753	12/2016	Jiang	N/A	N/A
2017/0343022	12/2016	Jiang	N/A	N/A

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Background/Summary

CROSS-REFERENCE TO RELATED APPLICATIONS (1) This application is a continuation of U.S. application Ser. No. 17/505,727 filed Oct. 20, 2021, which is a continuation of U.S. application Ser. No. 16/576,826 filed Sep. 20, 2019, now U.S. Pat. No. 11,167,881, which is a continuation of U.S. application Ser. No. 15/431,060 filed Feb. 13, 2017, now U.S. Pat. No. 10,427,831 issued on Oct. 1, 2019, the disclosures of which are hereby incorporated in their entirety by reference herein.

TECHNICAL FIELD
(1) The present disclosure relates to a storage container for use on a deck or patio. More specifically, this disclosure relates to a storage container with a bottom panel and four side panels that slide into engagement with one another, and a lid that snaps into engagement with one of the

panel for ease of assembly without the need for external hardware during assembly.

BACKGROUND

(2) Outdoor storage containers for storing household items such as water toys, seat cushions, children toys and the like are known in the art. A common type of such a container is known as a deck box. Deck boxes are utilized for storing such devices on an outdoor deck or patio of a house. To account for the elements and perhaps water from a nearby pool, deck boxes tend to be made of plastic. Assembly of these units can be troublesome due to the amount of external hardware required, such as screws, nuts, bolts, etc. These hardware pieces can be lost during assembly or can become dislodged from the assembled deck box over time, which can be dangerous for young children who access the deck box.

Description

BRIEF DESCRIPTION OF THE DRAWINGS

(1) FIG. **1** is a front perspective view of an assembled deck box according to one embodiment.

(2) FIG. **2** is a rear perspective view of the deck box of FIG. **1**.

(3) FIG. **3**A is a perspective view of a pair of side panels that each have a guide at a bottom edge region for allowing sliding engagement and assembly with a bottom panel that has corresponding guides at its side edge regions, according to one embodiment.

(4) FIG. **3**B is an enlarged view of a corner of the bottom panel of FIG. **3**A, illustrating one of its rails at a side edge region for engaging with one of the side panels.

(5) FIG. **3**C is an enlarged perspective view of one of the side panels of FIG. **3**A, according to one embodiment.

(6) FIG. **4**A is a perspective view of a front panel and a rear panel being assembled between the assembled side panels. The side panels have guides at each side edge region thereof for enabling sliding engagement with rails of the front and rear panels, according to one embodiment.

(7) FIG. **4**B is an enlarged view of a region of one of the side panels and the front panel of FIG. **4**A, labeled in FIG. **4**A as region **4**B, illustrating the engagement between the guide of the side panel and the rail of the front panel.

(8) FIG. **5**A is a perspective view of a lid with integrally-molded hinge members for engaging with integrally-molded hinge members on the back panel, according to one embodiment.

(9) FIG. **5**B is an enlarged view of the lid and the back panel of FIG. **5**A prior to assembly.

(10) FIG. **5**C is an enlarged view of the lid and the back panel of FIG. **5**A with the hinge members assembled.

DETAILED DESCRIPTION

(11) Embodiments of the present disclosure are described herein. It is to be understood, however, that the disclosed embodiments are merely examples and other embodiments can take various and alternative forms. The figures are not necessarily to scale; some features could be exaggerated or minimized to show details of particular components. Therefore, specific structural and functional details disclosed herein are not to be interpreted as limiting, but merely as a representative basis for teaching one skilled in the art to variously employ the embodiments. As those of ordinary skill in the art will understand, various features illustrated and described with reference to any one of the figures can be combined with features illustrated in one or more other figures to produce embodiments that are not explicitly illustrated or described. The combinations of features illustrated provide representative embodiments for typical applications. Various combinations and modifications of the features consistent with the teachings of this disclosure, however, could be desired for particular applications or implementations.

(12) The use of directional terms herein are meant to be relative to the orientation shown in the Figures to give context to the interplay and relative location of various regions or parts of the deck

box. Such terms include “side,” “top,” “bottom,” “front,” “back,” etc. These terms are mean to give context to the relative location of indicated parts of the deck box relative to other parts of the deck box as shown in the orientation depicted in the Figures, and are not meant to be limiting on the scope of the deck box in any other fashion unless specifically indicated.

(13) Referring to FIGS. **1** and **2**, a deck box **10** is illustrated. The deck box includes a front panel **12**, a rear or back panel **14**, a first side panel **16**, a second side panel **18**, a bottom panel **20**, and a lid **22**. As is described in more detail herein, the panels **12**-**20** are slideably connectable with one another, allowing a user to assemble the deck box by sliding the panels into engagement with one another. The lid **22** is then snap-fit connected to the back panel **14** to form an assembled deck box **10**.

(14) The assembled deck box **10** provides a storage device for being placed on an outdoor deck or patio. The engagement of the panels and the lid, given the teachings herein, provides the deck box **10** with the ability to be resistant to the elements (rain, snow, wind, etc.) while safely storing outdoor equipment such as furniture, toys, etc. in a rigid, easy-to-assemble container. Handles may be provided as integrally-molded features on the side panels **16**, **18** to allow for transport by the user of the assembled deck box. A locking feature may also be integrally molded therewith, such as a hook extending from the lid **22** that extends through an opening in the front panel **12**, as shown in FIG. **1**.

(15) In one embodiment, each panel **12**-**20** and the lid **22** is made of a polymeric material such as plastic (e.g., polyethylene) that is blow-molded to shape. Blow molding of each panel **12**-**20** and the lid **22** enables the panels **12**-**20** and lid **22** to be hollow, light weight, and with increased buoyancy as opposed to injection molding. In another embodiment, panels and lid of the deck box are formed by injection molding.

(16) One embodiment of an assembly of the deck box **10** will now be described with reference to the remaining figures. FIGS. **3**-**5** show assembly of the product sequentially, according to one embodiment of assembly. Although, it should be understood that other sequences of assembly are contemplated.

(17) Referring to FIGS. **3**A, **3**B, and **3**C, the side panels **16**, **18** are shown ready for assembly with the bottom panel **20**. In one embodiment, a bottom edge region **26** of each side panel **16**, **18** is each provided with a longitudinal opening such as a track, groove, or pocket, generally referred to as a “guide” **28**. The guide **28** may be a T-shaped, as shown in FIG. **3**C; however, other shapes are contemplated such as C-shaped, I-shaped, etc. The guide **28** is open on one side surface **30** of each side panel **16**, **18**, and extends along the width of the panel **16**, **18**, toward an opposing side surface **32** of the panel **16**, **18**. In other words, the guide **28** may extend from one side surface **30** and only partially toward the other side surface **32** of the respective side panel **16**, **18**. The guide **28** ends at end **34** so that the side surface **32** of the side panels **16**, **18** is not provided with an opening or access to the guide **28**.

(18) A side edge region **36** of the bottom panel **20** has a longitudinal protrusion or the like, generally referred to as a “rail” **38**. The bottom panel **20** is provided with two of such rails **38** at opposing side edge regions **36**. Each rail **38** is sized to be slideably received within a guide **28** of a corresponding one of the side panels **16**, **18**. The rail **38** may be T-shaped, as shown in FIG. **3**B such that it is configured to slide into engagement with the T-shaped guide **28** from the side. Other shapes are contemplated to match the selected shape of the guide **28**. The rail **38** extends completely or partially from a front side surface **40** toward a back side surface **42** of the bottom panel **20**.

(19) FIG. **3**A shows the beginning of assembly of the side panels **16**, **18** with the bottom panel **20**. During assembly, each side panel **16**, **18** is slid into alignment and engagement with the bottom panel **20** without the need for any external hardware. The open end of the guide **28** at the side surface **30** of each side panel **16**, **18** is slid over and across a respective rail **38** of the bottom panel **20**. The side panels **16**, **18** are slid across the width of the bottom panel **20** until the rail **38** of the

bottom panel **20** reaches the end **34** of the guide **28**. The relative location of the end **34** of the guide **28** and the rail **38** are such that when the rail **38** reaches the end **34** of the guide **28** the side surfaces **30**, **32** of the side panels **16**, **18** align with the front and back side surfaces **40**, **42** of the bottom panel.

(20) Each side panel **16**, **18** can be identical so that when assembled to the bottom panel, each side panel **16**, **18** is assembled from opposing directions, as shown in FIG. **3**A. In other words, the opening of the guide **28** on the side surface **30** of one side panel **16** faces the front of the deck box **10**, and the opening of the guide **28** on the side surface **30** of the other side panel **18** faces the back of the deck box **10**.

(21) With the side panels **16**, **18** assembled to the bottom panel **20**, the front panel **12** and the back panel **14** can be assembled, as shown in FIGS. **4**A-**4**B. Assembly of the front and back panels **12**, **14** to the side panels **16**, **18** can be performed via a sliding engagement similar to the assembly of the side panels **16**, **18** to the bottom panel **20**. In one embodiment, each side panel **16**, **18** includes opposing side edge regions **46**, **47**, each side edge region having a respective guide **48**, **49**. Each guide **48**, **49** is open at a surface **50** facing the top of the side panel, and extends partially or completely to the bottom surface **52**. The front panel **12** is provided with a pair of opposing rails **54** at opposing side edge regions. The rails **54** extend longitudinally and vertically (when in the orientation of FIG. **4**A). Each rail **54** is sized and configured to fit within one of the guides **48**, **49** of both side panels **16**, **18**. During assembly, the rails **54** can slide through a guide of both side panels **16**, **18** simultaneously as the front panel **12** is forced downward toward the bottom panel **20**. Like the front panel **12**, the back panel **14** is also provided with a pair of opposing rails **56** at opposing side edge regions. The rails **56** also extend longitudinally and vertically (when in the orientation of FIG. **4**A). Each rail **56** is sized and configured to fit within one of the guides **48**, **49** of both side panels **16**, **18** to provide a sliding engagement with the side panels **16**, **18** similar to that of the front panel **12**.

(22) Similar to the guides **28** described above, the guides **48**, **49** can each end to define a stop for engaging with the leading edge of one of the rails of the front and back panels **12**, **14**.

(23) In one embodiment, the bottom panel **20** is provided with one or more recesses **60** that partially extend into the bottom panel **20** and are concave, facing upward. The front and back panels **12**, **14** can each include one or more protrusions or tabs **62** that extend downward and are received by the recess **60**. Each recess **60** can be the same or slightly smaller in dimension than the corresponding tabs **62** of the front and back panels **12**, **14**. This provides additional engagement between bottom panel **20** with the front and back panels **12**, **14** after the front and back panels **12**, **14** have slid into engagement. This allows a portion of the front and back panels **12**, **14** to be fitted within a portion of the bottom panel **20**.

(24) With the side panels **16**, **18**, the front panel **12** and the back panel **14** assembled, the lid **22** can then be assembled to the back panel **14** to complete assembly, as shown in FIGS. **5**A-**5**C. (It should be noted that the lid **22** can be assembled to the back panel **14** prior to the back panel **14** being assembled to the side panels **16**, **18**.)

(25) The lid **22** is assembled to the back panel **14** via a hinge **64** that is integrally molded with the deck box **10**. Each of the back panel **14** and the lid **22** can have hinge members that are integrally molded therewith. For example, the back panel **14** can include a first hinge member **66** that is integrally molded therewith, and the lid **22** can include a second hinge member **68** that is integrally molded therewith. The first hinge member **66** can be a male hinge member such as a pin, rod, cylinder, or the like; the second hinge member **68** can be a female hinge member that includes a receptacle, pocket, or groove integrally formed therewith for receiving the first hinge member **66**.

(26) The flexibility and relative sizing of the hinge members **66**, **68** can enable the lid **22** to snap to the back panel **14** at the hinge **64**. In one embodiment, the first hinge member **66** can be formed with an outer diameter that exceeds the unbiased inner diameter of the second hinge member **68**. Pressing the first hinge member **66** into engagement with the second hinge member can cause

protrusions or arms of the second hinge member **68** to flex and open, increasing in inner diameter to receive the first hinge member **66** in a snapping engagement. In another embodiment, the first hinge member **66** can be formed with flattened regions (described below) that allow the first hinge member to be pressed into the second hinge member **68** without causing flexing of the second hinge member **68**.

(27) A hinge **64** is formed when the first and second hinge members **66**, **68** are connected together. This hingedly connects the lid **22** to the back panel **14**, allowing the lid **22** to pivot with respect to the back panel **14** and open and close the deck box **10**. The hinge **64** can include a plurality of spaced apart first hinge members **66** and a corresponding plurality of spaced apart second hinge members **68**.

(28) The first hinge members **66** can each be formed to include one or more flat regions **67** thereon. In one embodiment, the first hinge members **66** are generally cylindrical except having a recessed or indented flat region **67** at a central region of the first hinge member **66**. Another flat region can be provided on either side of the flat region **67** and on the underside of the first hinge member **66**. This provides the first hinge member **66** with a reduced diameter or cross-sectional area at the location of the flat regions **67**. The flat regions **67** can facilitate the securement of the lid **22** once assembled. For example, the flat region **67** can facilitate the fit of a central tab of the second hinge member **68** about the first hinge member **66** when the lid **22** is in the orientation shown in FIG. **5**A. Two other flat regions can be provided on either side of the flat region **67** and on the underside of the pin to align with the other (outer) tabs of the second hinge member **68**. The first hinge member **66** can be pressed into the second hinge member **68**, with the reduced size at the flat regions **67** causing little or no flex of the second hinge member **68** during connection. Once the second hinge member **68** is snap-fitted about the first hinge member **66**, the lid **22** can be rotated to close the deck box **10**. Removal of the lid **22** is then more difficult when the lid **22** is rotated because the reduced diameter at the location of the flat region **67** is not engaged with the central tab of the second hinge member **68**. Therefore, the second hinge member **68** would have to flex further to allow the entire diameter of the first hinge member **66** (not including the flat region **67**) to exit the second hinge member **68** than when the lid is in the open orientation shown in FIG. **5**A. The lid **22** can be more easily removed once the lid **22** is rotated back to the orientation shown in FIG. **5**A such that the flat regions **67** align with the central tab, requiring little to no flex of the second hinge member **68** when the first hinge member **66** is removed therefrom.

(29) It should be understood that the hinge **64** described above is but one embodiment and the first hinge member **66** and the second hinge member **68** can be swapped in relative location. For example, in another embodiment, the first hinge member **66** is integrally formed with the lid **22** rather than with the back panel **14**, and the second hinge member **68** is integrally formed with the back panel **14** rather than with the lid **22**.

(30) Each of the panels **12**-**20** and the lid **22** can be provided with stiffening ribs formed therewith. For example, stiffening ribs **70** are shown in the bottom panel **20** in FIGS. **3**A and **3**B. The stiffening ribs increase the structural rigidity of the deck box, especially if the deck box is blow-molded to have a hollow interior.

(31) A plurality of anchoring sections may also be provided to facilitate the anchoring of the deck box **10** to an underlying surface, such as a wooden deck or patio. For example, the side panels **16**, **18** may be provided with a plurality of feet **72** that extend outward therefrom. The feet **72** can have a lower surface that is coplanar with or slightly elevated from the lower surface of the deck box to be adjacent to the underlying surface. Each of the feet **72** can be provided with an aperture **73** defined therein for a screw, bolt, nail, or other fastener to mount the deck box to the underlying surface.

(32) It should be understood that in the embodiments described above, the “guides” and “rails” of the various panels can be interchanged. For example, while the side panels **16**, **18** are illustrated to have a guide **28** extending therethrough to receive a rail of the bottom panel **20**, the rails can be

located on the side panels **16**, **18** and the guide can be located in the bottom panel **20**. This understanding applies to all embodiments that have a sliding engagement between panels.
(33) It should also be understood that the front and rear panels can be assembled to the bottom panel first, and then each of the side panels can be slid into engagement between the front and back panels. For example, in one embodiment, the bottom panel is provided with a guide or rail, each extending along the length of the bottom panel at the front edge and rear edge. The front and rear panels also each include a guide or rail for sliding into engagement with the bottom panel. The front and rear panels, or the bottom panel, may be provided with stops to limit the sliding movement of the front and rear panels with respect to the bottom panel, similar to the embodiments described above. With the front and rear panels assembled, the side panels can then be assembled to the front and rear panels, which are each provided with guides or rails that extend along their edges in a direction toward the bottom panel. The side panels each include guides or rails for providing a sliding engagement between the side panels and the front and back panels. Each side panel slides into engagement with the edges of the front and back panels, sliding downward toward the bottom panel until contacting the bottom panel. Like the other embodiments described above, the side panels or front and rear panels may be provided with stops to limit the sliding movement of the side panels toward the bottom panel, causing the side panels to cease sliding when they reach the bottom panel.
(34) The embodiments described above allow the panels to be shipped and sold in a stacked, disassembled configuration with the panels stacked on top of one another, for example. This reduces the required packaging space. A purchaser of the deck box would be able to assemble the panels given the teachings above in a relatively short amount of time and with little difficulty, and without the need for external hardware such as screws, bolts, brackets, etc.
(35) While exemplary embodiments are described above, it is not intended that these embodiments describe all possible forms encompassed by the claims. The words used in the specification are words of description rather than limitation, and it is understood that various changes can be made without departing from the spirit and scope of the disclosure. As previously described, the features of various embodiments can be combined to form further embodiments of the invention that may not be explicitly described or illustrated. While various embodiments could have been described as providing advantages or being preferred over other embodiments or prior art implementations with respect to one or more desired characteristics, those of ordinary skill in the art recognize that one or more features or characteristics can be compromised to achieve desired overall system attributes, which depend on the specific application and implementation. These attributes can include, but are not limited to cost, strength, durability, life cycle cost, marketability, appearance, packaging, size, serviceability, weight, manufacturability, ease of assembly, etc. As such, to the extent any embodiments are described as less desirable than other embodiments or prior art implementations with respect to one or more characteristics, these embodiments are not outside the scope of the disclosure and can be desirable for particular applications.

Claims

1. A deck box comprising: a bottom panel; a first side panel attachable to the bottom panel and having a first rail protruding outwardly from a first side edge region of the first side panel; a second side panel attachable to the bottom panel and having a second rail protruding outwardly from a second side edge region of the second side panel; a front panel having a first guide configure to engage with the first rail in a sliding manner, wherein the first guide is open at a top surface of the front panel, and wherein the first guide extends from the top surface of the front panel and toward a bottom surface of the front panel to enable the first rail to slide into the first guide from the top surface of front panel; a back panel having a second guide configured to engage the second rail in a sliding manner, wherein the second guide is open at a bottom surface of the back panel, and

wherein the second guide extends from the bottom surface of the back panel and partially toward a top surface of the back panel to define a stop that limits sliding engagement between the back panel and the second rail, the back panel further having a edge with a first hinge member, and a lid having a second hinge member configured to engage with the first hinge member to define a hinged connection between the lid and the back panel.

2. The deck box of claim 1, wherein the first guide is C-shaped.

3. The deck box of claim 1, wherein the second guide is C-shaped.

4. The deck box of claim 1, wherein the first and second rails are C-shaped.

5. The deck box of claim 1, wherein the front panel is connected to the second side panel.

6. The deck box of claim 1, wherein the back panel is connected to the first side panel.

7. The deck box of claim 1, wherein the bottom panel, the first side panel, the second side panel, the front panel, and the back panel are all blow-molded panels having a hollow interior.

8. The deck box of claim 1, wherein the bottom panel includes plurality of recesses configured to receive corresponding tabs.

9. The deck box of claim 8, wherein the tabs extend from the bottom surface of the back panel and the bottom surface of the front panel, wherein the tabs engage with the recesses during assembly.

10. The deck box of claim 1, wherein: the first rail is the only rail provided on the first side edge region of the first side panel; and the second rail is the only rail provided on the second side edge region of the second side panel.

11. The deck box of claim 1, wherein the bottom panel includes one or more recesses configured to engaged with tabs on either the front panel or the back panel.

12. The deck box of claim 1, wherein the bottom panel includes one or more recesses configured to engaged with tabs on the front panel and the back panel.

13. The deck box of claim 1, wherein the front panel, back panel, first side panel, and second side panel are a polymeric blow-molded material.

14. The deck box of claim 1, wherein: the front panel includes tabs extending downwardly therefrom, the back panel includes tabs extending downwardly therefrom, and the bottom panel includes a plurality of recesses configured to receive the tabs of the front panel and the tabs of the back panel.

15. A deck box comprising: a blow-molded bottom panel including a plurality of recesses; first and second side panels attachable to the bottom panel, wherein the first and second side panels each include a C-shaped rail protruding outwardly and running vertically on a side edge region thereof; a front panel that slidably connects to the first side panel, wherein the front panel includes a front guide configured to engage with the C-shaped rail of the first side panel, wherein the front guide is open at a top surface of the front panel and extends from the top surface of the front panel and toward a bottom surface of the front panel; and a back panel that slidably connects to the second side panel, the back panel having a back guide configured to engage with the C-shaped rail of the second side panel, wherein the back guide is open at a bottom surface of the back panel and extends from the bottom surface of the back panel and partially toward a top surface of the back panel and ends to define a stop that limits sliding movement between the back panel and the second side panel.

16. The deck box of claim 15, further comprising: a lid having a hinge member that engages with the back panel.

17. The deck box of claim 15, wherein: the front panel includes tabs extending downwardly therefrom, the back panel includes tabs extending downwardly therefrom, the bottom panel includes a plurality of recesses configured to receive the tabs of the front panel and the tabs of the back panel, and the first side panel includes a first edge that defines the side edge region of the first side panel, and wherein the first edge includes only a single rail, the single rail being the C-shaped rail of the first side panel.

18. A deck box comprising: a bottom panel including one or more recesses; a first side panel

attachable to the bottom panel, the first side panel having only a single guide or only a single rail extending vertically along a first edge of the first side panel; a second side panel attachable to the bottom panel, the second side panel having only a single guide or only a single rail extending vertically along a first edge of the second side panel; a front panel connected to one of the side panels, the front panel having: a guide or rail configured to engage with the guide or rail of the first side panel, and one or more protrusions that extend downward and are configured to engage with the one or more recesses; a back panel connected to one of the side panels, the back panel having: a guide or rail configured to engage with the guide or rail of the second side panel, and one or more protrusions that extend downward and are configured to engage with the one or more recesses; and a lid connectable to the back panel.

19. The deck box of claim 18, wherein: the guide or rail of the first side panel is a rail, the guide or rail of the second side panel is a rail, the guide or rail of the back panel is a guide that is open from and extends from a bottom surface of the back panel and extends partially toward a top surface of the back panel and ends at a stop sur face that limits sliding movement between the back panel and the rail of one of the first or second side panels, and the guide or rail of the front panel is a guide that is open from and extends from a top surface of the front panel and extends toward a bottoms surface of the front panel.

20. The deck box of claim 18, wherein the back panel includes a first hinge member, and the lid has a second hinge member configured to engage with the first hinge member to define a hinge connection between the lid and the back panel.