

FIG. 1

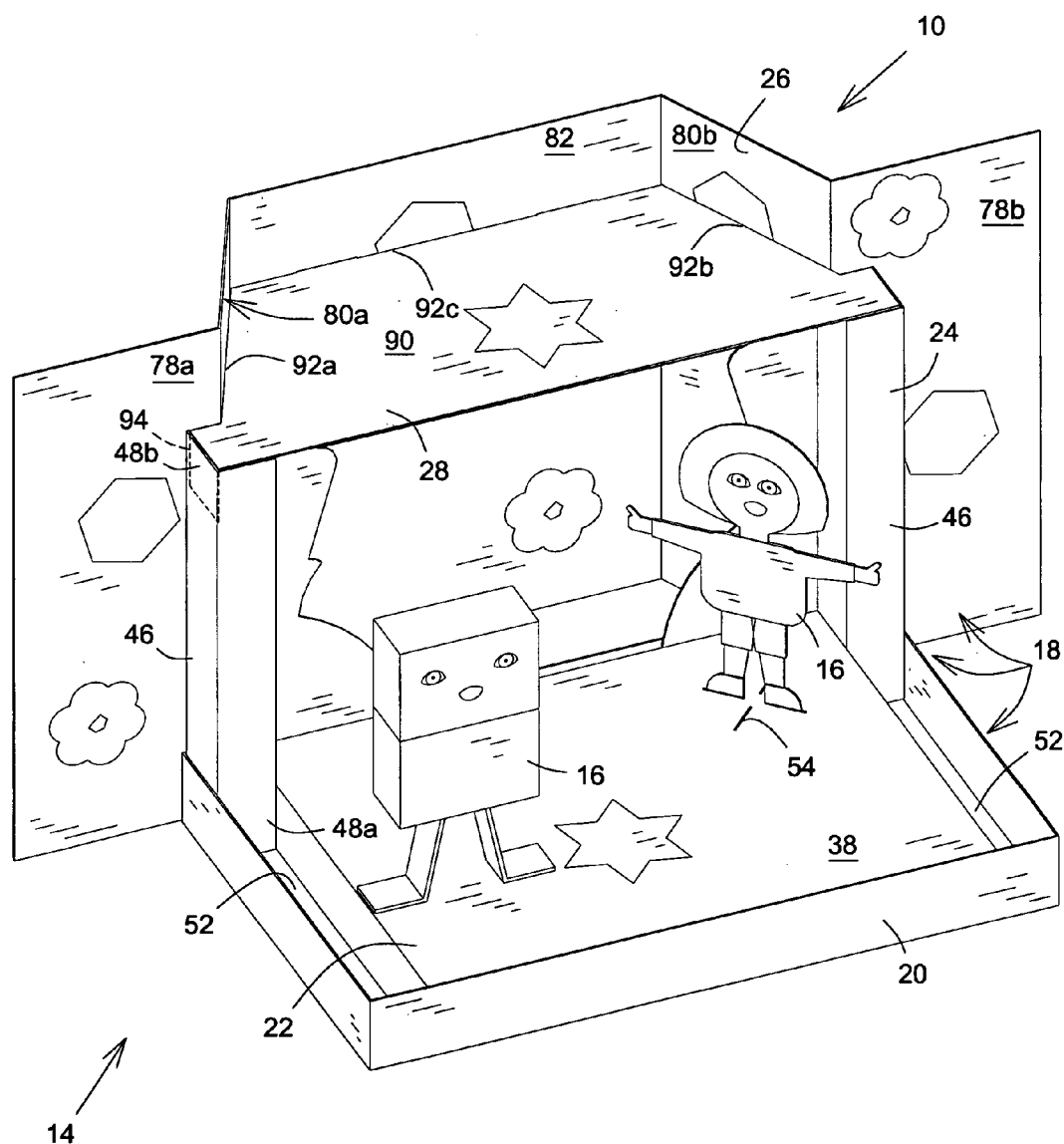


FIG.2

FOLDABLE FORTABLE STAGE ASSEMBLY AND ORIGAMI SET

CROSS REFERENCE TO RELATED APPLICATION

[0001] Benefit of U.S. Provisional Application for Patent Ser. No. 60/901,335, filed on Feb. 15, 2007, is hereby claimed.

FIELD OF THE INVENTION

[0002] The present invention relates to origami and is more particularly concerned with a portable stage and origami assembly in which an origami object may be placed on a stage assembly.

BACKGROUND OF THE INVENTION

[0003] Kits and assemblies for Origami, or the art of creating objects by folding materials, such as paper, cardboard, or the like is well known in art. For example, U.S. Pat. No. 3,878,638, issued to Benjamin on Apr. 22, 1975, teaches a foldable origami set having a sheet of foldable material having a plurality of paired indicia, such as numbers, set out a pre-selected locations on the sheet. The indicia are sequentially coded such that, by folding the sheet of foldable material such that each member of each pair is brought into contact with the other member of each pair in the sequence indicated, a desired origami object is assembled.

[0004] Unfortunately, while such conventional origami sets allow for creating of individual origami objects, such as representations of figures of people, animals, or objects assembled made by folding a foldable material, the conventional origami sets do not provide larger structures, such as representations of stages or houses, in which the origami objects may be displayed or played with. While objects such as conventional dollhouses or stages for toy figurines may be deployed for such purposes, they are often heavy and bulky. Further, conventional stages for figurines and dollhouses often consume a disproportionate amount of space relative the origami objects, especially when the origami objects are unfolded. Accordingly, structures such as conventional stages for figurines and dollhouses may be cumbersome to transport, especially compared to the origami objects. Further, it may be difficult to secure the origami objects to such structures.

[0005] Accordingly, there is a need for an improved stage and origami assembly.

SUMMARY OF THE INVENTION

[0006] It is therefore a general object of the present invention to provide an improved stage and origami assembly.

[0007] An advantage of the present invention is that the stage and origami assembly is made of light weight foldable material and can be easily transported.

[0008] Another advantage of the present invention is that the stage and origami assembly can be easily assembled, as well as easily disassembled for easy transport.

[0009] A further advantage of the present invention is that the origami objects can be easily secured to the stage assembly.

[0010] Another advantage of the present invention is that the origami objects can be secured to the stage assembly such that the stage assembly may be transported when assembled with origami objects secured thereupon.

[0011] According to an aspect of the present invention, there is provided a stage and origami assembly comprising:

[0012] at least one origami object of a first foldable material, each origami object having at least one origami object tab extending therefrom; and

[0013] a stage assembly of one of the first foldable material and a second foldable material, the stage assembly comprising:

[0014] a hollow base tray having a planar base surface with a plurality of tray walls extending vertically therefrom; and

[0015] a stage insert having a planar stage surface with a plurality of stage walls extending vertically therefrom, the stage insert being removably insertable into the base tray with the stage surface extending above the base surface, the stage surface having at least one origami object slit into which the origami object tab may be inserted to removably and securely connect the origami object to the stage section.

[0016] Other objects and advantages of the present invention will become apparent from a careful reading of the detailed description provided herein, with appropriate reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] Further aspects and advantages of the present invention will become better understood with reference to the description in association with the following Figures, in which similar references used in different Figures denote similar components, wherein:

[0018] FIG. 1 is a perspective view of an embodiment of a stage assembly and origami set in accordance with the present invention in a disassembled configuration therefor; and

[0019] FIG. 2 is a perspective view of the stage assembly and origami set shown in FIG. 1 in an assembled configuration therefore.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0020] With reference to the annexed drawings the preferred embodiments of the present invention will be herein described for indicative purpose and by no means as of limitation.

[0021] Reference is now made to FIGS. 1 and 2. FIG. 1 shows an embodiment of a stage and origami assembly, shown generally as **10**, in a dissembled configuration therefor, shown generally as **12**. FIG. 2 shows the assembly **10** in an assembled configuration therefor, shown generally as **14**. The assembly **10** consists of at least one origami object **16** and a stage assembly, shown generally as **18** upon or within which the origami object **16** is connectable or otherwise placeable. The origami object **16** and stage assembly **18** are typically made of a flexible and foldable material, such as paper, cardboard, flexible plastic or the like. Further, the origami object **16** may be made of one foldable material whereas the stage assembly **18** may be constructed of the same or a different foldable material. The origami object **16** is, as is well known in the art, folded from an unfolded configuration into a folded configuration to form the object **16**.

[0022] The stage assembly **18** includes a hollow base tray **20**, a stage insert **22**, a rear insert **24**, a foldable backdrop wall **26**, an upper floor insert **28**, which can be releasably connected together from the dissembled configuration **12** into the

into assembled configuration 14, in which the stage assembly 18 may be transported by supporting, for example carrying, the tray 20 with the remaining components 16, 22, 24, 26, 28 either seated therein or supported thereby and extending thereabove. The components 16, 20, 22, 24, 26, 28 are further configured, i.e. sized and shaped, such that when they are not connected, components 16, 20, 22, 24, 26, 28 will fit more or less entirely within the tray 20 and a cover, not shown, may be placed over the tray 20 to completely contain the stage assembly 18 and the objects 16, thus facilitating compact storage and carriage of the set 10.

[0023] The base tray 20 has a planar base surface 30 with generally opposed, first and second tray walls, respectively 32a, 32b, as well as generally opposed third and fourth tray walls, respectively 34a, 34b extending between the first and second tray walls 32a, 32b and connected thereto. The tray walls 32, 34 extend outwardly and substantially perpendicularly away from the base surface 30. The first and second tray walls 32a, 32b are, preferably, parallel one another, as are the third and fourth tray walls 34a, 34b. In general, when the assembly 18 is in the assembled configuration 14, the stage insert 22, rear insert 24, and backdrop wall 26 will all be at least partially inserted into the tray 20 and will be supported thereon, with the upper floor insert being connected to the rear insert 24 and backdrop wall 26. The origami objects 16 can also be connected to the stage insert 22 or the upper floor insert 28 when the assembly 18 is in the assembled configuration 14. Thus, the assembly 18 in the assembled configuration 18 can be displaced, along with the origami objects 16 connected thereto by grasping the tray 20 and carrying the assembly 18 with the remaining components 16, 22, 24, 26, 28 extending thereabove and supported thereby.

[0024] When the assembly 18 is placed in the assembled configuration 14, the stage insert 22 is inserted, i.e. seated, in the base tray 20. The stage insert 22 has a planar stage surface 38 and generally opposed first and second stage walls 30 with generally opposed, first and second stage walls, respectively 40a, 40b, as well as generally opposed third and fourth stage walls, respectively 42a, 42b extending between the first and second stage walls 40a, 40b and connected thereto. The stage walls 40, 42 extend outwardly and substantially perpendicularly away from the stage surface 38. The first and second stage walls 40a, 40b are, preferably, parallel one another, as are the third and fourth stage walls 42a, 42b. The stage walls 40, 42 and stage surface 38 are configured such that the third and fourth stage walls 42 are substantially of the same length as the third and fourth tray walls 34, whereas the first and second stage walls 40 are shorter in length than the first and second tray walls 34. Accordingly, the stage insert 22 is releasably, i.e. removably, and securely insertable into the tray 20 with the stage surface 38, supported by the stage walls 40, 42, extending above the base surface 30 and with the first and second stage walls 40a, 40b extending proximally adjacent, and preferably abutting, the first and second tray walls 32a, 32b and with the third and fourth stage walls 42a, 42b spaced apart from the third and fourth tray walls 34a, 34b.

[0025] The rear insert 24 has a rear wall 44, with a rear wall aperture 60 extending through a portion thereof, and two hollow support legs 46, having respective generally opposed first leg ends 48a and second leg ends 48b with leg apertures 50 therein. The support legs 36 form or are depicted as columns for the stage insert 22. The rear wall 44 extends between the support legs 46 which protrude outwardly away from, and preferably substantially perpendicularly to, the rear wall 44.

The rear insert 24 is configured, i.e. sized and shaped, for insertion into the tray 20, along with the stage insert 22, such that the first end 48a of one leg 46 fits into a space 52 extending between and abuts the spaced apart third stage wall 42c and third tray wall 34c and the first end 48a of the other leg 46 fits into the space 52 extending between and abuts the spaced-apart fourth stage wall 42d and fourth tray wall 34d, with the rear wall 44 extending adjacently between, and preferably abutting, the first tray wall 32a and the first stage wall 40a. Accordingly, the rear insert 24 is retained in the tray 20 by the first ends 48 of the legs 46 abutting either the third tray 34a and stage walls 34a, 42a or the fourth tray and stage walls 34b, 42b and the rear wall 44 extending between with the first stage and tray walls. 32a, 40a. The stage surface 38 generally has at least one origami object slit 54 configured for secure insertion therein of an origami object tab 56 extending from the origami object 16 when assembled, thus permitting the origami object 16 to be securely connected to the stage surface 38. The upper floor insert 28 may also have such origami object slits 54.

[0026] The backdrop wall 26 forms a backdrop, a backdrop protruding portion, shown generally as 58, of which protrudes outwardly away from the first tray wall 32a and is at least partially visible through the rear wall aperture 60 when the assembly 18 is in the assembled configuration 14. The backdrop wall 26 is defined by generally opposed first and second edges, respectively 70a, 70b, which intersect generally opposed third and fourth edges 72a, 72b. Further, the backdrop wall 26 has foldable first and second outer creases 74a, 74b extending from the first edge 70a to the second edge 70b and foldable first and second inner creases 76a, 76b, also extending from the first edge 70a to the second edge 70b. The backdrop wall 26 is, accordingly, foldable along the creases 72, 74, into first and second outer backdrop portions 78a, 78b, first and second intermediate backdrop portions 80a, 80b, and a central backdrop portion 82. The first outer backdrop portion 78a extends between the third edge 72a to the first outer crease 74a, while the second outer backdrop portion 78b extends between the fourth edge 72b to the second outer crease 74b. The first intermediate backdrop portion 80a extends from the first outer crease 74a to the first inner crease 76a and the second intermediate backdrop portion 80b extends from the second outer crease 74b to the inner second inner crease 76b. The central portion extends between creases 76a and 76b.

[0027] The backdrop wall 26 is connectable to the tray 20 and the second ends 48b of the support legs 46. Specifically, the backdrop wall 26 has a pair of foldable lower tabs 84 extending to the first edge 70 and foldable outwardly away from the backdrop wall 26 that are releasably, i.e. removably, insertable into the tray 20 between, and generally abutting with, the first leg ends 48a and the first tray wall 32a for retaining the backdrop wall 26 in the tray 20 in proximity to the first edge 70. Similarly, the backdrop wall 26 also has a pair of foldable upper tabs 86 foldable outwardly away from the backdrop wall 26 and positioned intermediate the first and second edges 70a, 70b for removable insertion into the second leg ends 48b, and specifically the apertures 50 situated thereat, for retaining the backdrop wall 26 in proximity to the second edge 70b thereof. One upper tab 84a and one lower tab 86a are situated in the first outer backdrop portion 78a between the first outer crease 74a, generally extending partially therealong, and the third edge 72a, whereas the other upper tab 84a and lower tab 86a are situated in the second

outer backdrop portion **78b** between the second outer crease **76a**, generally extending partially therealong, and the fourth edge **72b**. Thus, when the upper tabs **86** are inserted into the second leg ends **48** and the lower tabs **84** are inserted into the tray **20**, as described, and the two intermediate portions **80** are folded extending away from the first tray wall **32a**, the intermediate portions **80** and the central portion **82**, situated between the intermediate portions **80**, form the protruding backdrop section **58** protruding outwardly away from the first tray wall **32**.

[0028] When the stage assembly **18** is in the assembled configuration **14**, the upper floor insert **28** is connected to the backdrop wall **26** and the second leg ends **48b** of the support legs **46**. The upper floor insert **28** consists of a planar upper floor surface **90** defined by a plurality of upper floor edges or sides **92**. The floor surface may, optionally, have origami object slits **54**, for receiving origami object tabs **56** for attaching the origami object to the floor surface **90**. The floor insert **28** has two foldable floor insert tabs **94** extending from two generally opposed upper floor sides **92a**, **92b** and at least one floor backdrop tab **96** extending planarly outwardly from an upper floor edge **92c** situated generally intermediate floor sides **92a**, **92b**. The floor insert tabs **94** and floor backdrop tab **96** are configured such that the floor insert tabs **94** are foldable and releasably, i.e. removably, insertable into the apertures **50** at the second leg ends **48b** with the floor backdrop tab **96** being, at the same time, removably insertable into a backdrop slit **100**, situated between the inner creases **76**. Thus, the floor insert **28** is releasably, i.e. removably, connectable, for the assembled configuration **14**, to the second leg ends **48b** and the backdrop wall **26**, with the upper floor surface **90** extending over the stage surface **38**. Further, the floor sides **92a**, **92b**, **92c** are configured, i.e. sized and shaped, such that they mate, i.e. intersect, with the inner backdrop portions **80** and central backdrop portion **90**, and therefore the backdrop protruding portion **58**, when the floor insert **28** is connected to the second leg ends **48b** and the backdrop wall **26**.

[0029] Although the present stage and origami assembly has been described with a certain degree of particularity, it is to be understood that the disclosure has been made by way of example only and that the present invention is not limited to the features of the embodiments described and illustrated herein, but includes all variations and modifications within the scope and spirit of the invention as hereinafter claimed.

We claim:

1. A stage and origami assembly comprising:

at least one origami object of a first foldable material, each origami object having at least one origami object tab extending therefrom; and

a stage assembly of one of said first foldable material and a second foldable material, said stage assembly comprising:

a hollow base tray having a planar base surface with a plurality of tray walls extending vertically therefrom; and

a stage insert having a planar stage surface with a plurality of stage walls extending vertically therefrom, said stage insert being removably insertable into said base tray with said stage surface extending above said base surface, said stage surface having at least one origami object slit into which said origami object tab may be inserted to removably and securely connect said origami object to said stage section.

2. The stage and origami assembly of claim 1, wherein said plurality of tray walls comprises generally opposed first and second tray walls and said plurality of stage walls comprises generally opposed first and second stage walls, said first and second stage walls extending respectively proximally adjacent said first and second tray walls when said tray insert is inserted into said base tray.

3. The stage and origami assembly of claim 2, wherein said stage assembly further comprises a rear insert having a rear wall, said rear insert being releasably connectable to the tray section with said rear wall extending proximally adjacent thereto and storable in said base tray when disconnected therefrom.

4. The stage and origami assembly of claim 3, wherein said rear wall extends between and proximally adjacent to said first tray wall and said first stage wall and in retaining abutment therewith when said rear insert is inserted into said tray, thereby enabling releasable connection of said rear insert to said tray.

5. The stage and origami assembly of claim 4, wherein said plurality of tray walls further comprises generally opposed third and fourth tray walls extending away from said base surface between said first and second tray walls and connected thereto and said plurality of stage walls comprises generally opposed third and fourth stage walls extending away from said stage surface between said first and second stage walls and connected thereto.

6. The stage and origami assembly of claim 5, wherein said third and fourth stage walls are respectively substantially parallel to said third and fourth stage walls and spaced apart therefrom.

7. The stage and origami assembly of claim 5, wherein said rear insert further comprises two hollow support legs having generally opposed respective first and second support leg ends and protruding outwardly from said rear wall which is connected thereto.

8. The stage and origami assembly of claim 7, wherein, when said rear insert is inserted into said tray, said respective first end of one said support leg extends between and abuts said third tray wall and said third stage wall and said respective first end of said other support leg extends between and abuts the fourth tray wall and fourth stage wall with said rear wall extending between said first tray wall and said first stage wall.

9. The stage and origami assembly of claim 8, wherein said stage assembly further comprises a foldable backdrop wall defined by generally opposed first and second edges intersecting generally opposed third and fourth edges thereof, said backdrop wall being releasably connectable to said base tray and storable in said base tray when disconnected therefrom.

10. The stage and origami assembly of claim 9, wherein said foldable backdrop further comprises first and second foldable outer creases extending from said first and second edges and first and second foldable inner creases extending from said first and second edges and situated between said two foldable outer creases, said backdrop wall being foldable along said inner and outer creases to form a protruding backdrop portion thereof protruding outwardly from said first tray wall when said backdrop is connected to said base tray.

11. The stage and origami assembly of claim 10, wherein said foldable backdrop wall further comprises a pair of foldable lower tabs extending to said first edge and foldable outwardly away from said backdrop wall, a pair of foldable upper tabs foldable extendable outwardly away from said backdrop wall and situated intermediate said first and second

backdrop edges, one foldable upper tab and one foldable lower tab being situated between said first outer crease and said third edge and said other foldable upper tab and foldable lower tab situated between said second outer crease and said fourth edge, said lower foldable tabs, and said upper foldable tabs being configured for insertion of each foldable lower tab inserted into said tray between one of said support legs and said first tray wall and in abutment therewith and insertion of each foldable upper tab into one of said support legs at said respective second support leg end thereof to releasably connect said backdrop wall to said tray section.

12. The stage and origami assembly of claim **10**, wherein said foldable backdrop wall further comprises at least one backdrop slit disposed therein between said foldable inner creases.

13. The stage and origami assembly of claim **12**, wherein said stage assembly further comprises an upper floor insert comprising a planar upper floor surface, said upper floor surface insert being releasably connectable to said backdrop wall and to said support legs with said upper floor surface extending above said stage surface, said upper floor insert being storable in said base tray when disconnected from said backdrop wall and to said support legs.

14. The stage and origami assembly of claim **13**, wherein said upper floor insert comprises at least one upper origami object slit disposed within said upper floor surface and into which said origami object tab may be inserted to removably and securely connect said origami object to said upper floor surface.

15. The stage and origami assembly of claim **13**, wherein said upper floor insert has first and second generally opposed

floor sides and a third floor side extending from said first floor side to said second floor side, said first and said second floor side each having side a respective foldable floor insert tab extending therefrom and said third side having at least one floor backdrop tab extending planarly outwardly therefrom, said floor backdrop tab being insertable into said backdrop slit and each respective floor insert tab being insertable into the respective second support leg end of one of the support legs to releasably the upper floor insert to said backdrop wall and said support legs.

16. The stage and origami assembly of claim **1**, wherein said stage assembly further comprises a foldable backdrop wall defined by generally opposed first and second edges intersecting generally opposed third and fourth edges thereof, said backdrop wall being releasably connectable to said base tray and storable in said base tray when disconnected therefrom.

17. The stage and origami assembly of claim **16**, wherein said foldable backdrop further comprises first and second foldable outer creases extending from said first and second edges and first and second foldable inner creases extending from said first and second edges and situated between said two foldable outer creases, said backdrop wall being foldable along said inner and outer creases to form a protruding backdrop portion thereof protruding outwardly from said first tray wall when said backdrop is connected to said base tray.

18. The stage and origami assembly of claim **17**, wherein said foldable backdrop wall further comprises at least one backdrop slit disposed therein between said foldable inner creases.

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