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EXPANDABLE TOY WITH A PLURALITY OF NESTING SHELL COMPONENTS TO FORM A FIGURINE OR OTHER ITEM

Abstract

Described is an expandable accordion-type toy with a nesting shell that allows the toy to selectively expand and contract. The toy includes a top shell and a first expandable component connected to the top shell. A bottom shell is connected to a second expandable component. A center shell connects the first expandable component to the second expandable. Each of the first and second expandable components are made of accordion pop tubes to selectively transition between a contracted state and an expanded state. When in the contracted state, the first expandable component is concealed within the top shell and center shell, while the second expandable component is concealed within the center shell and bottom shell.

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Background/Summary

CROSS-REFERENCE TO RELATED APPLICATIONS [0001] The present application is a non-provisional application, claiming the benefit of priority of U.S. Ser. No. 63/553,123, filed Feb. 13, 2024, the entirety of which is incorporated herein by reference.

BACKGROUND OF THE INVENTION

(1) Field of Invention

[0002] The present invention relates to an expandable and contractable toy and, more particularly, to an expandable accordion-type toy with a nesting shell.

(2) Description of Related Art

[0003] Fidget-type toys have become popular in recent years and have expanded to include a variety of configurations, including spinners, squishees, and clickers. Some other types of toys have been devised that include expandable accordions. Such expandable accordion-type toys are typically elongated tubes that simply expand and contract. While entertaining, such toys provide little more play or imagination than simply expanding and contracting.

[0004] Thus, a continuing need exists for a new and improved expandable toy.

SUMMARY OF INVENTION

[0005] The present disclosure provides an expandable accordion-type toy with a nesting shell that allows the toy to selectively expand and contract. The toy includes a top shell; a first expandable component connected to the top shell; a center shell connected to the first expandable component; a second expandable component connected to the center shell; and a bottom shell connected to the second expandable component. Each of the first and second expandable components are made of accordion pop tubes to selectively transition between a contracted state and an expanded state. When in the contracted state, the first expandable component is concealed within the top shell and center shell, while the second expandable component is concealed within the center shell and bottom shell. To allow for such a concealment, the top shell and center shell are shaped to matingly engage with one another to nest together. Further, the center shell and bottom shell are shaped to matingly engage with one another to nest together.

[0006] Finally, as can be appreciated by one in the art, the present invention also comprises a method for forming and using the invention described herein.

Description

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] The objects, features and advantages of the present invention will be apparent from the following detailed descriptions of the various aspects of the invention in conjunction with reference to the following drawings, where:

[0008] FIG. 1 is an illustration of the expandable toy transitioning between an expanded state and a contracted state;

[0009] FIG. 2 is an exploded-view illustration of the expandable toy, depicting the toy in the expanded state;

[0010] FIG. 3A is a right-view illustration of the expandable toy, depicting the toy in the expanded state;

[0011] FIG. 3B is a front-view illustration of the expandable toy, depicting the toy in the expanded state;

[0012] FIG. 3C is a left-view illustration of the expandable toy, depicting the toy in the expanded state;

[0013] FIG. 3D is a rear-view illustration of the expandable toy, depicting the toy in the expanded state;

[0014] FIG. 3E is a top-view illustration of the expandable toy, depicting the toy in the expanded state;

[0015] FIG. 3F is a bottom-view illustration of the expandable toy, depicting the toy in the expanded state;

[0016] FIG. 4A is a right-view illustration of the expandable toy, depicting the toy in the contracted state;

[0017] FIG. 4B is a front-view illustration of the expandable toy, depicting the toy in the contracted state;

[0018] FIG. 4C is a left-view illustration of the expandable toy, depicting the toy in the contracted state;

[0019] FIG. 4D is a rear-view illustration of the expandable toy, depicting the toy in the contracted state;

[0020] FIG. 4E is a top-view illustration of the expandable toy, depicting the toy in the contracted state; and

[0021] FIG. 4F is a bottom-view illustration of the expandable toy, depicting the toy in the contracted state.

DETAILED DESCRIPTION

[0022] The present invention relates to an expandable and contractable toy and, more particularly, to an expandable accordion-type toy with a nesting shell. The following description is presented to enable one of ordinary skill in the art to make and use the invention and to incorporate it in the context of particular applications. Various modifications, as well as a variety of uses in different applications will be readily apparent to those skilled in the art, and the general principles defined herein may be applied to a wide range of embodiments. Thus, the present invention is not intended to be limited to the embodiments presented, but is to be accorded the widest scope consistent with the principles and novel features disclosed herein.

[0023] In the following detailed description, numerous specific details are set forth in order to provide a more thorough understanding of the present invention. However, it will be apparent to one skilled in the art that the present invention may be practiced without necessarily being limited to these specific details. In other instances, well-known structures and devices are shown in block diagram form, rather than in detail, in order to avoid obscuring the present invention.

[0024] The reader's attention is directed to all papers and documents which are filed concurrently with this specification and which are open to public inspection with this specification, and the contents of all such papers and documents are incorporated herein by reference. All the features disclosed in this specification, (including any accompanying claims, abstract, and drawings) may be replaced by alternative features serving the same, equivalent or similar purpose, unless expressly stated otherwise. Thus, unless expressly stated otherwise, each feature disclosed is only one example of a generic series of equivalent or similar features.

[0025] Furthermore, any element in a claim that does not explicitly state "means for" performing a specified function, or "step for" performing a specific function, is not to be interpreted as a "means" or "step" clause as specified in 35 U.S.C. Section 112, Paragraph 6. In particular, the use of "step of" or "act of" in the claims herein is not intended to invoke the provisions of 35 U.S.C. 112, Paragraph 6.

[0026] Please note, if used, the labels left, right, front, back, top, bottom, forward, reverse, clockwise and counter clockwise have been used for convenience purposes only and are not intended to imply any particular fixed direction. Instead, they are used to reflect relative locations and/or directions between various portions of an object.

(1) Description

[0027] The present disclosure provides an expandable and contractable toy with a nesting shell. As shown in FIG. 1, the toy **100** can be selectively manipulated between an expanded state **102** and a contracted state **104**. Notably, the toy **100** has a top shell **106**, a center shell **108**, and a bottom shell **110**. Positioned between the top shell **106** and center shell **108** is a first expandable component **112**, while positioned between the center shell **108** and bottom shell **110** is a second expandable component **114**.

[0028] The expandable components **112** and **114** are any suitable item that can be selectively expanded and contracted. Desirably, the expandable components **112** and **114** are accordion-type pop tubes that allow a user to selectively expand and contract the expandable components **112** and **114**. Further, the expandable components **112** and **114** can be formed as two distinct items or, desirably, formed as a single elongated pop tube that is separated by placement of the center shell **108**.

[0029] For further understanding, FIG. 2 provides an exploded-view illustration of the toy **100**. In this aspect and as show, the first expandable component **112** and second expandable component **114** are formed as a single pop tube, with a recessed center portion **200** separating the two components **112** and **114**. The center shell **108** in this aspect is comprised of two shell halves **202** and **204**, like a clamshell that affixes around the center portion **200** to collectively form the center shell.

[0030] Further, the bottom shell **110** can be formed in any suitable manner. In one aspect and as illustrated, the bottom shell is formed of a bottom housing **206** and a bottom plate **208**. In this aspect, the bottom housing **206** has one more grooves **210** that are formed to allow a bottom flange **212** of the second expandable component **114** to pass therethrough and become secured against the bottom housing **206**. The bottom plate **208** can then be secured (e.g., plastic welded, glued, etc.) against the bottom housing **206** to secure the expandable component **114** to the bottom shell **110**.

[0031] Similarly, the top shell **106** can be formed of a top housing **214** and a top cover **216**. The top housing **214** has a top groove **218** through which a top flange **220** of the first expandable component **112** can be passed through to secure the top flange **220** against a lip **222** in the top housing **214**. The top cover **216** can then be affixed (e.g., plastic welded, glued, etc.) against the top housing **214** to secure the first expandable component **112** to the top shell.

[0032] In one aspect and as shown, the expandable toy is configured to resemble a figurine or other item. For example, the top shell **106** is designed to resemble a head, while the center shell **108** serves as the body, and the bottom shell **110** serves as the figures legs with feet **224**. As shown in FIG. 1, indicia, such as markings, stickers, shaping, or any other type of indicia can be added to the shell components **106**, **108**, and **110** to further impart figurine characteristics. As a non-limiting example, eyes **120** (e.g., sticker, paint, moldings, extensions, add-ons, etc.) can be placed on the top shell **106**, while arms **122** (e.g., sticker, paint, moldings, extensions, add-ons, etc.) are placed on the center shell **108** and feet **224** are added (e.g., sticker, paint, molded, extensions, add-ons, etc.) to the bottom shell **110**. Thus, as can be appreciated by those skilled in the art, the toy **100** can be played while expanding and contracting the various components while also using imagination for the figure or other item that is depicted via the shell.

[0033] For further understanding, FIGS. 3A through 3F depict right-view, front-view, left-view, rear-view, top-view, and bottom-view illustrations, respectively, of the expandable toy **100** in the expanded state. Alternatively, FIGS. 4A through 4F depict right-view, front-view, left-view, rear-view, top-view, and bottom-view illustrations, respectively, of the expandable toy **100** in the contracted state.

[0034] Finally, while this invention has been described in terms of several embodiments, one of ordinary skill in the art will readily recognize that the invention may have other applications in other environments. It should be noted that many embodiments and implementations are possible. Further, the following claims are in no way intended to limit the scope of the present invention to

the specific embodiments described above. In addition, any recitation of “means for” is intended to evoke a means-plus-function reading of an element and a claim, whereas, any elements that do not specifically use the recitation “means for”, are not intended to be read as means-plus-function elements, even if the claim otherwise includes the word “means”. Further, while particular method steps have been recited in a particular order, the method steps may occur in any desired order and fall within the scope of the present invention.

Claims

1. An expandable toy, comprising: a top shell; a first expandable component connected to the top shell; a center shell connected to the first expandable component; a second expandable component connected to the center shell; a bottom shell connected to the second expandable component; and wherein each of the first and second expandable components are selectively transitionable between a contracted state and an expanded state, such that when in the contracted state, the first expandable component is concealed within the top shell and center shell, while the second expandable component is concealed within the center shell and bottom shell.
 2. The expandable toy as set forth in claim 1, wherein the top shell and center shell are shaped to matingly engage with one another to nest together.
 3. The expandable toy as set forth in claim 2, wherein the center shell and bottom shell are shaped to matingly engage with one another to nest together.
 4. The expandable toy as set forth in claim 3, wherein the first and second expandable components are accordion pop tubes.
 5. The expandable toy as set forth in claim 1, wherein the center shell and bottom shell are shaped to matingly engage with one another to nest together.
 6. The expandable toy as set forth in claim 1, wherein the first and second expandable components are accordion pop tubes.
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