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(54) **EXPANDABLE TOY WITH A PLURALITY OF
NESTING SHELL COMPONENTS TO FORM
A FIGURINE OR OTHER ITEM**

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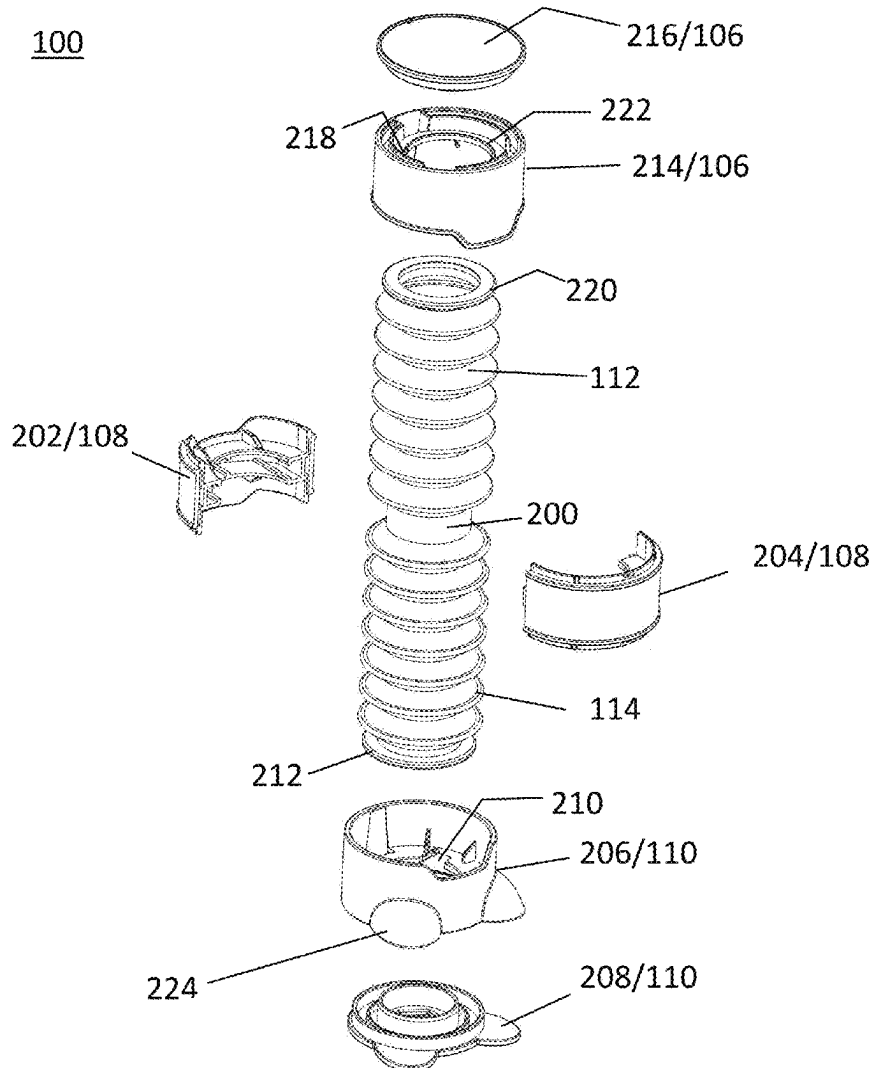
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Related U.S. Application Data

(60) Provisional application No. 63/553,123, filed on Feb.
13, 2024.

(57) **ABSTRACT**

Described is an expandable accordion-type toy with a nest-
ing 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 com-
ponents 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 compo-
nent is concealed within the top shell and center shell, while
the second expandable component is concealed within the
center shell and bottom shell.



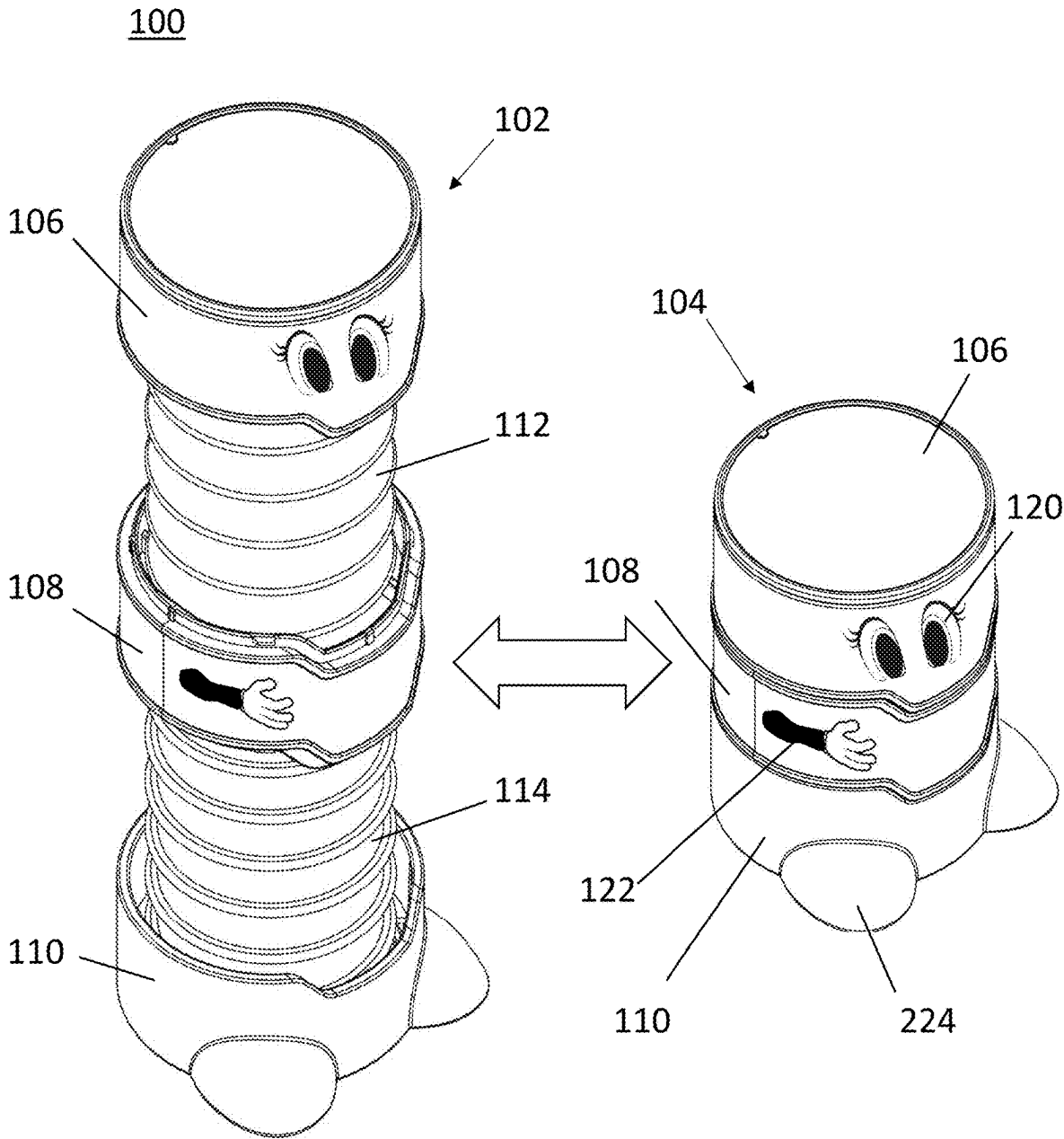


FIG. 1

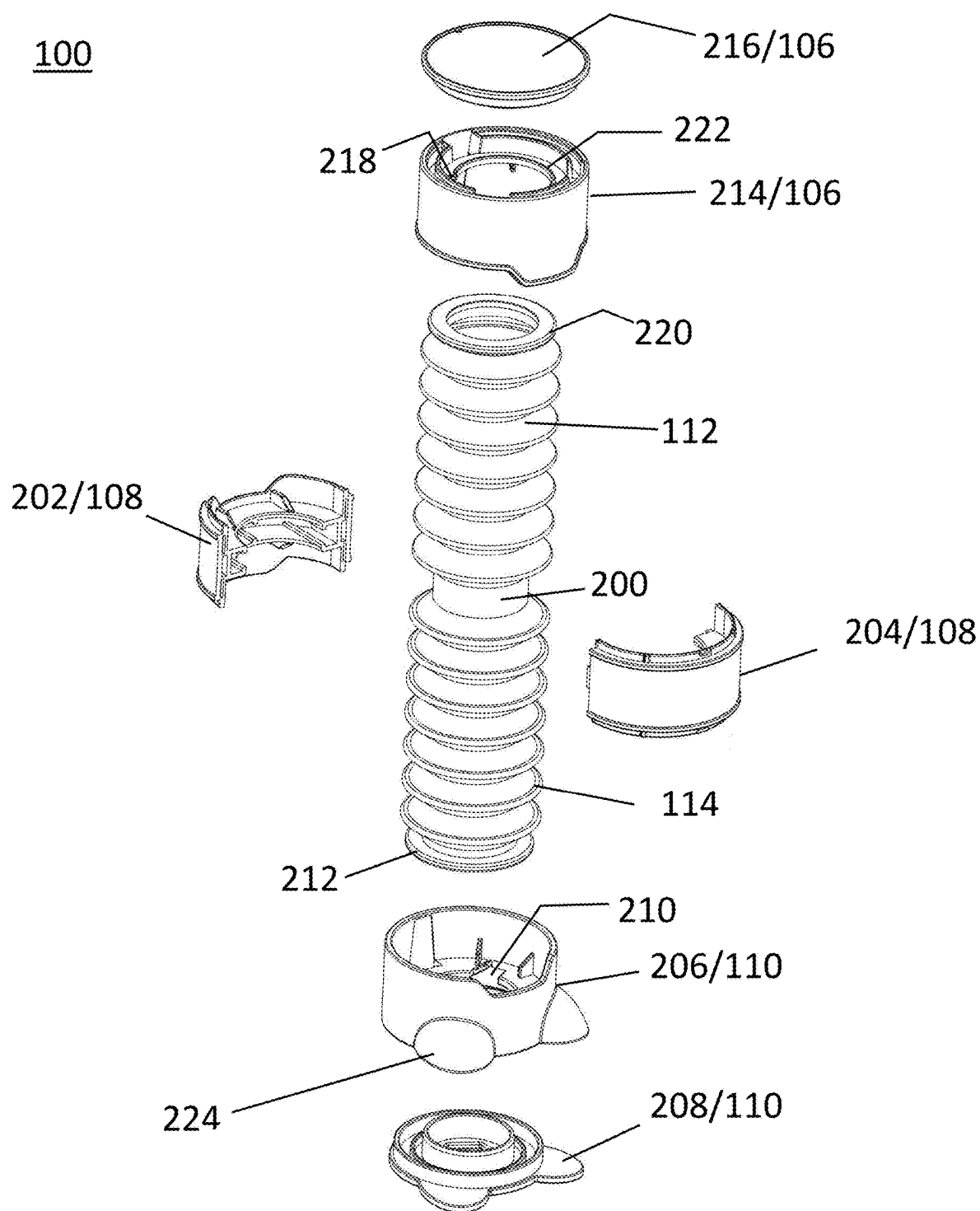


FIG. 2

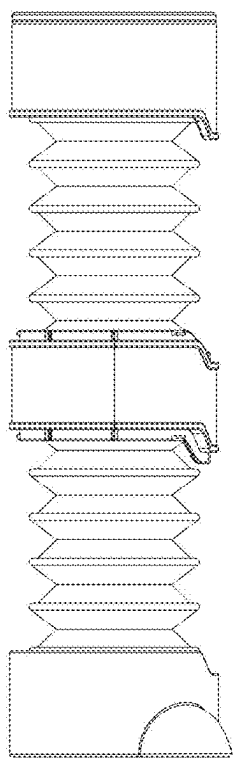


FIG. 3A

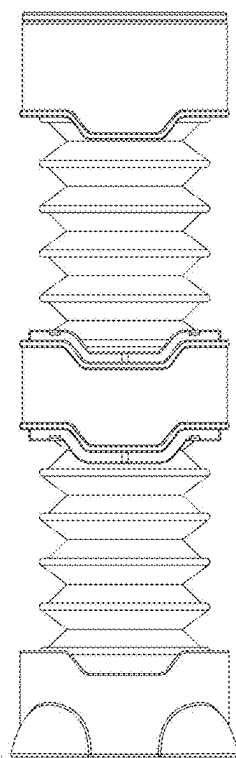


FIG. 3B

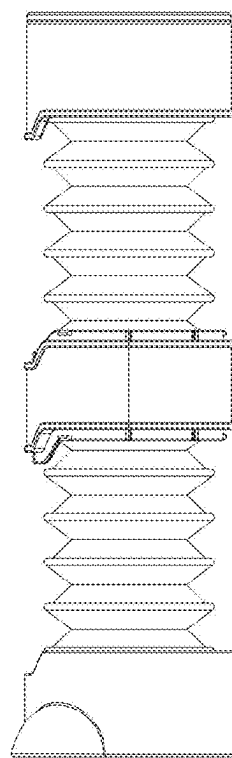


FIG. 3C

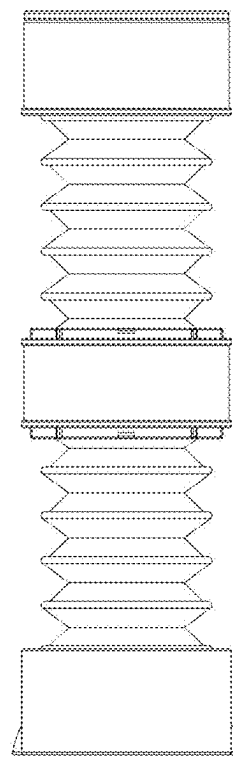


FIG. 3D

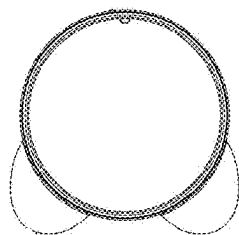


FIG. 3E

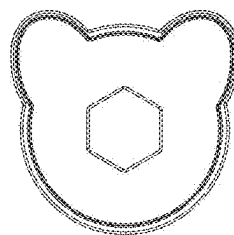


FIG. 3F

100

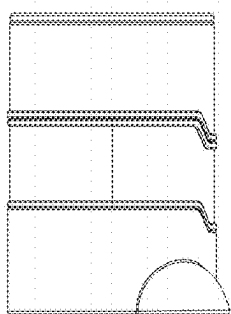


FIG. 4A

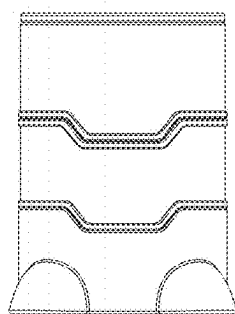


FIG. 4B

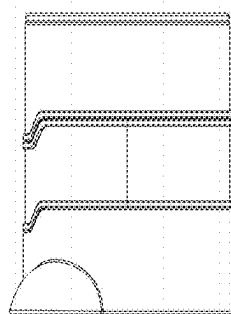


FIG. 4C

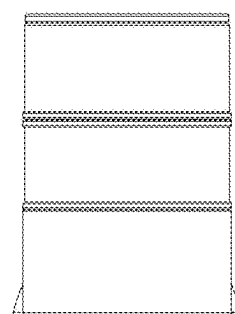


FIG. 4D

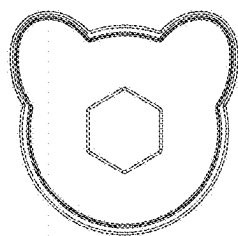


FIG. 4E

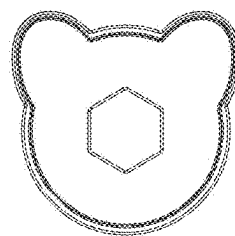


FIG. 4F

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

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.

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.

What is claimed is:

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.

* * * * *