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(19) **United States**(12) **Patent Application Publication****Vetuskey et al.**(10) **Pub. No.: US 2006/0289317 A1**(43) **Pub. Date: Dec. 28, 2006**(54) **TOY WHEEL DISPLAY CASE**(52) **U.S. Cl. 206/304**

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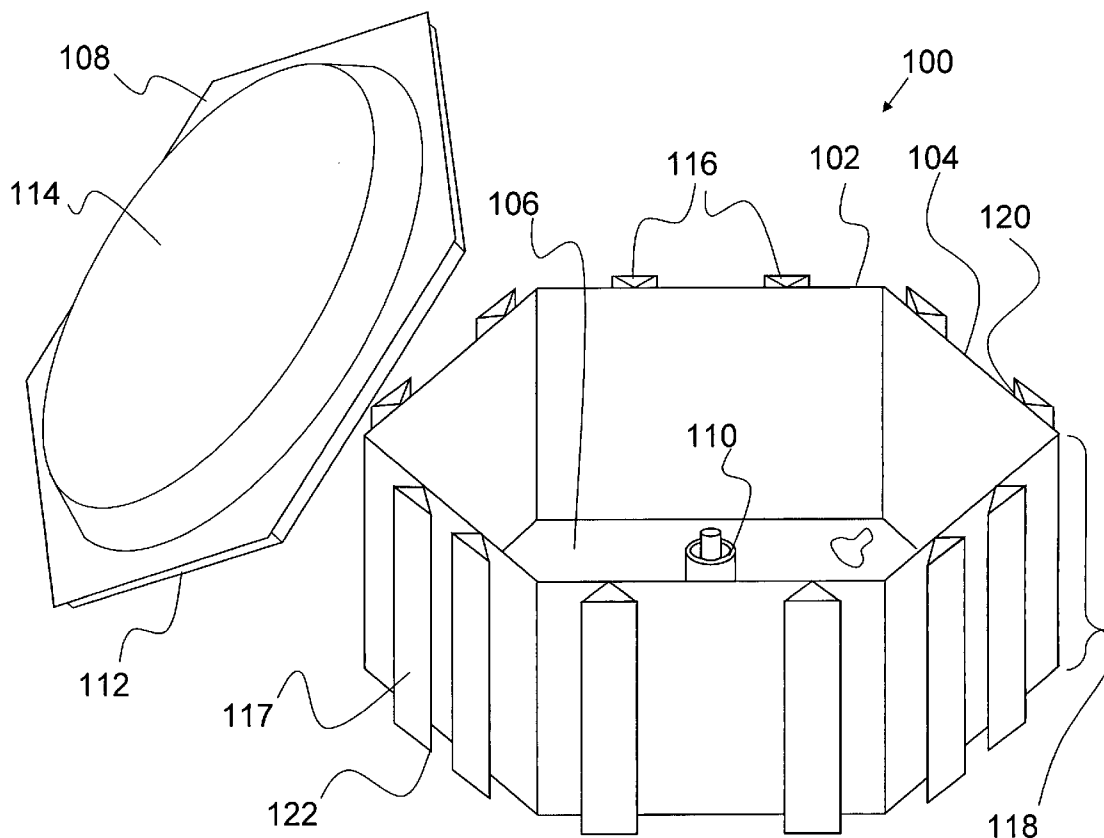
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(57) **ABSTRACT**

A toy wheel display case is described. The display case includes a housing having side walls, a back wall, and a detachably attachable front wall. At least one of the walls is formed of a clear material, thereby allowing a user to see through the wall and into an interior of the display case. A protrusion is centrally positioned on the back wall and extends into the housing. The protrusion is configured to allow for placement of a toy wheel, whereby a user may position the toy wheel onto the protrusion and encase the toy wheel within the housing. When placed upon the protrusion, the entire weight of the toy wheel is supported by the protrusion with no point of the wheel's tire touching the housing.



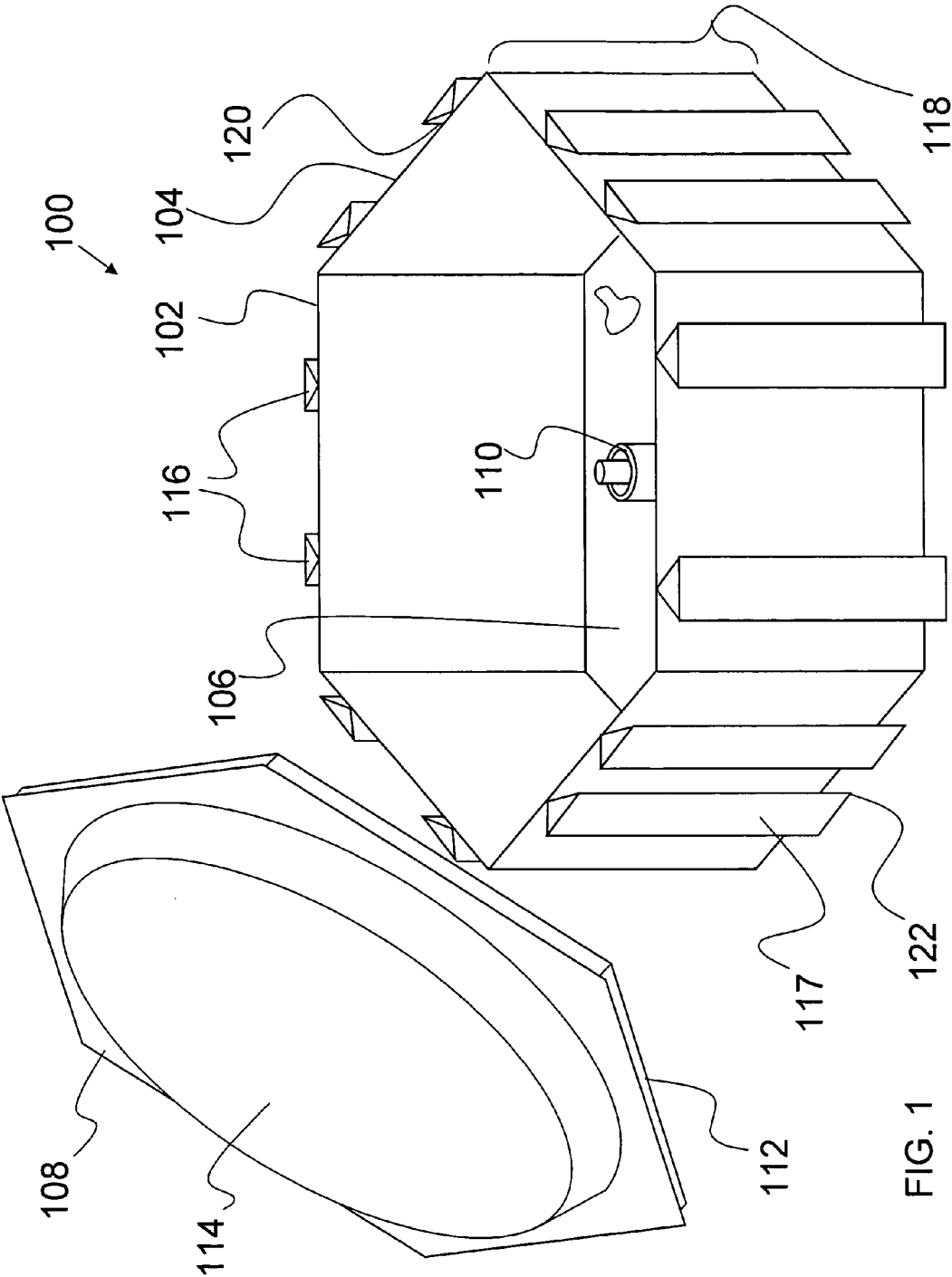


FIG. 1

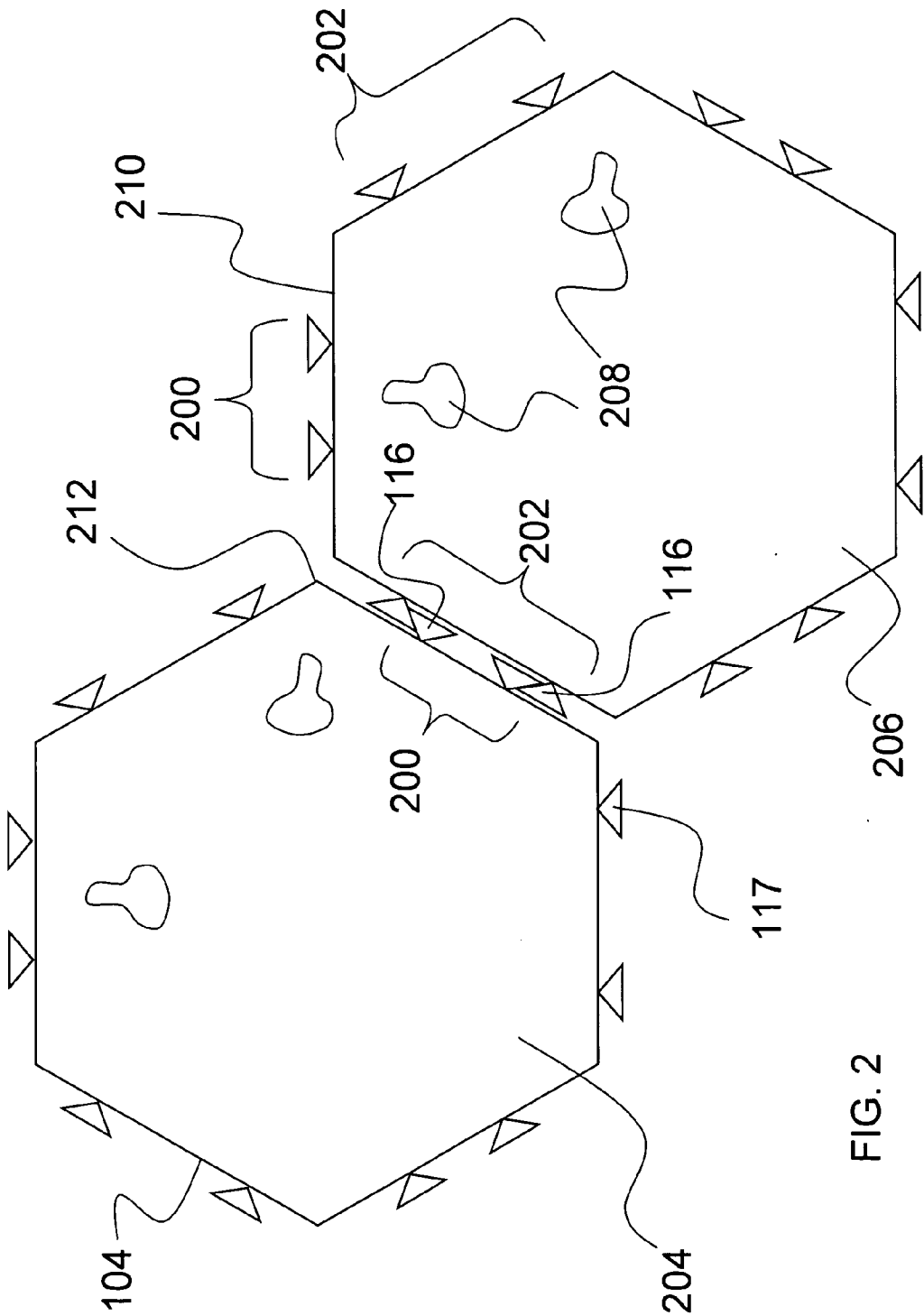


FIG. 2

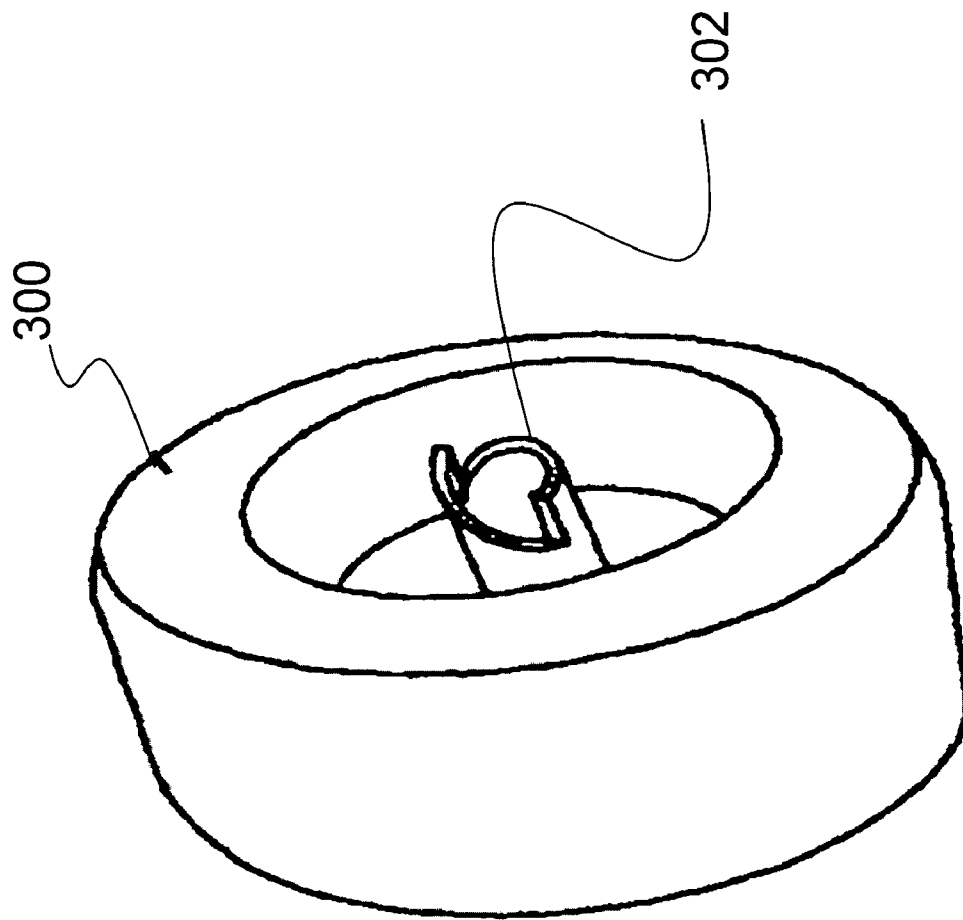


FIG. 3

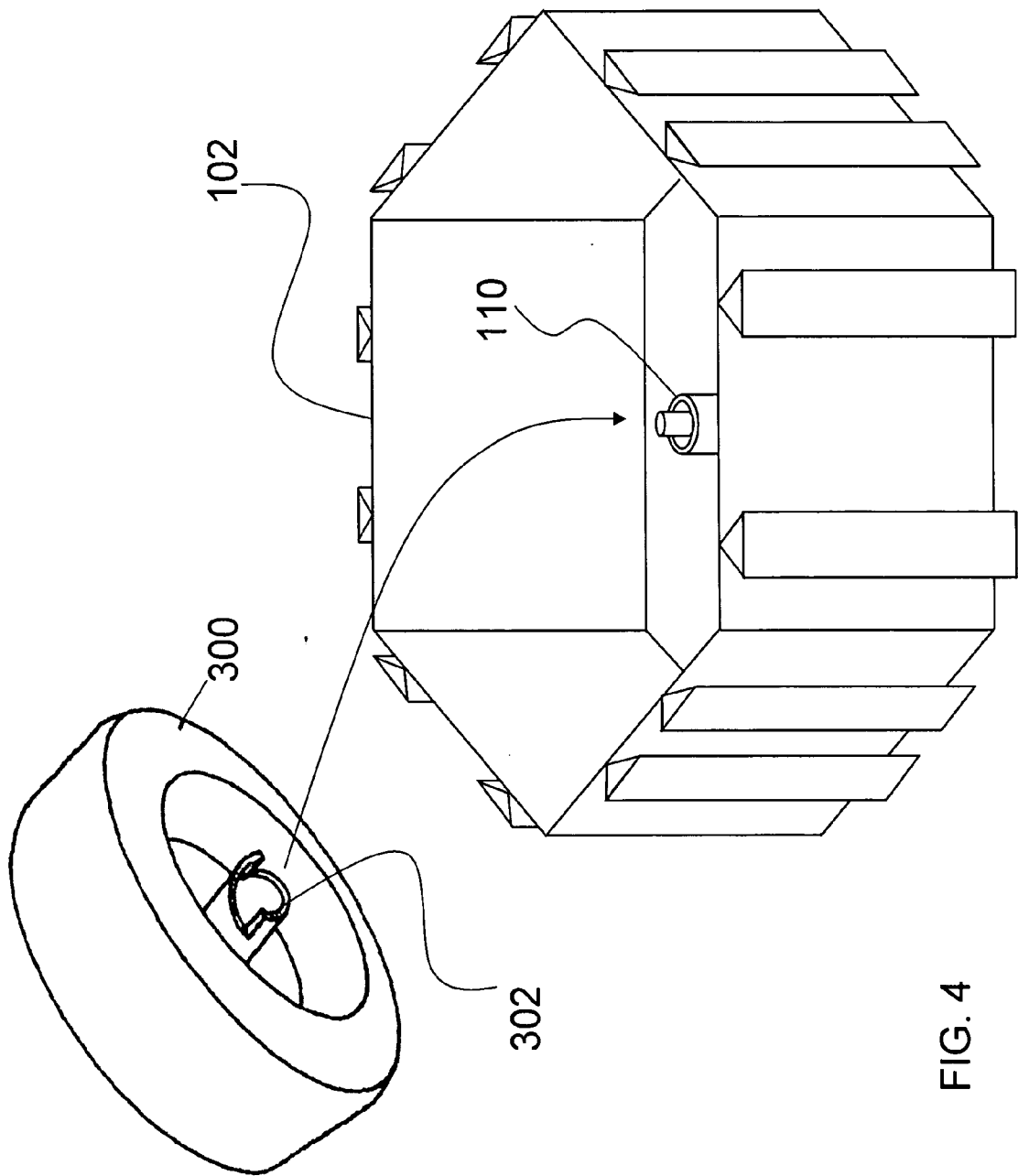


FIG. 4

TOY WHEEL DISPLAY CASE

BACKGROUND OF THE INVENTION

[0001] (1) Field of Invention

[0002] The present invention relates to a display case and, more particularly, to a display case for a toy wheel.

[0003] (2) Description of Related Art

[0004] Display cases have long been known in the art. Display cases have been devised for displaying a variety of objects, including dolls, collectibles, and other items.

[0005] In some cases, display cases have been created for specific items. For example, a display case for a collectible baseball may be the approximate size of the baseball and may include a base that is formed to support the baseball.

[0006] However, no display cases have been formed to specifically display toy wheels. While toy wheels may be placed in other display cases, the wheel will be required to rest upon its tire, thereby detracting from the look of the toy wheel. Thus, a continuing need exists for a display case that is specifically designed for toy wheels and that will support the entire weight of the toy wheel without necessitating that the toy wheel rest upon its tire.

SUMMARY OF INVENTION

[0007] The present invention relates to a toy wheel display case. The toy wheel display case comprises a housing and a protrusion. The housing includes side walls, a back wall, and a detachably attachable front wall. At least one of the walls is formed of a clear material, thereby allowing a user to see through the wall. The protrusion is centrally positioned on the back wall and extending into the housing. The protrusion is configured to allow for placement of a toy wheel, whereby a user may position the toy wheel onto the protrusion and encase the toy wheel within the housing by attaching the detachably attachable front wall.

[0008] In another aspect, all of the walls of the housing are formed of a clear material, thereby allowing a user to place a toy wheel within the housing and view the toy wheel from multiple angles.

[0009] In yet another aspect, the side wall comprises six side walls, thereby forming a hexagonal-shaped housing with the back wall and front wall being hexagonal-shaped.

[0010] In yet another aspect, the present invention further comprises an attachment apparatus formed on at least one of the side walls. The attachment apparatus is formed to be attached with a corresponding attachment apparatus on a second toy wheel display case, thereby allowing a user to attach two toy wheel display cases together.

[0011] Furthermore, the side wall has a height and the attachment apparatus includes two elongated ridges that span the height of the side wall. Each of the elongated ridges includes elongated grooves.

[0012] In another aspect, the present invention further comprises an attachment apparatus attached with each of the six side walls. Each attachment apparatus includes two elongated ridges, with the elongated ridges being spaced from each other in one of two positions, a first position and a second position. The attachment apparatus is formed on

each of the six side walls such that the elongated ridges alternate from a first position to a second position on adjacent walls, thereby allowing a user to connect two toy wheel display cases by connecting an attachment apparatus in the first position with the attachment apparatus of a second toy wheel display case that are in the second position.

[0013] In another aspect, the detachably attachable front wall includes a raised circular portion, thereby allowing for placement of wheels of various widths.

[0014] In another aspect, the present invention further comprises a toy wheel for placement within the display case, the toy wheel having a centrally positioned hub, with the hub being formed to be attached with the protrusion.

[0015] In yet another aspect, the wheel and housing are formed such that when the wheel is attached with the housing, the wheel is entirely supported by the protrusion with no point of the wheel's tire touching any point of the side walls.

[0016] Finally, as can be appreciated by one in the art, the present invention also comprises a method for forming and using the toy wheel display case described herein.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] 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:

[0018] **FIG. 1** is a front-view illustration of a toy wheel display case according to the present invention;

[0019] **FIG. 2** is a back-view illustration of two toy wheel display cases connected with each other according to the present invention.

[0020] **FIG. 3** is a front perspective-view illustration of a toy wheel according to the present invention;

[0021] **FIG. 4** is an illustration of a toy wheel being positioned within the toy wheel display case according to the present invention; and

[0022] **FIG. 5** is a front-view illustration of a toy wheel encased within the toy wheel display case according to the present invention.

DETAILED DESCRIPTION

[0023] The present invention relates to a display case and, more particularly, to a display case for a toy wheel. 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.

[0024] 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.

[0025] 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 one example only of a generic series of equivalent or similar features.

[0026] 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.

(1) Description

[0027] The present invention relates to a toy wheel display case. As shown in FIG. 1, the display case 100 includes a housing 102 having side walls 104, a back wall 106, and a detachably attachable front wall 108. The housing 102 is formed of any suitably rigid material, a non-limiting example of which includes plastic. Additionally, at least one of the walls (e.g., front wall 108) is formed of a clear material (e.g., clear plastic), thereby allowing a user to see through the wall and view a toy wheel encased within the housing 102. While only one clear wall is needed to view a displayed wheel, any number of walls may be made of a clear material. As a non-limiting example, all of the walls are formed of a clear material, thereby allowing a user to view the toy wheel from multiple angles.

[0028] A protrusion 110 is centrally positioned on the back wall 106 and extends into an interior of the housing 102. The protrusion 110 may be formed with the housing 102 or separately formed and thereafter attached with the housing 102. The protrusion 110 is configured to allow for placement of a toy wheel.

[0029] The detachably attachable front wall 108 is formed to operate as a lid and be detachably attachable with the housing 102. As can be appreciated by one in the art, there are numerous methods by which to detachably attach a lid, a non-limiting example of which includes having the side walls 104 of the housing 102 operate as a sleeve, with the front wall 108 having a corresponding ridge 112 to fit within the sleeve.

[0030] Additionally, the detachably attachable front wall 108 includes a raised circular portion 114. The raised circular portion 114 increases the height of the housing 102 to allow for placement of wheels of various widths. Additionally, because of the circular nature of a wheel, the raised circular portion 114 assists in accentuating a displayed wheel.

[0031] The housing 102 may be formed in any suitable shape to display a toy wheel. As a non-limiting example, the side walls 104 include six side walls 104, thereby forming a hexagonal-shaped housing 102 with the back wall 106 and front wall 108 being hexagonal-shaped. The hexagonal shape closely follows the shape of a circular tire, yet still possesses flat sides to allow for placement of the display case 100 upon a surface.

[0032] The display case 100 is formed to be attached with other display cases. In order to attach the display case 100 with another display case, at least one attachment apparatus 116 is formed on at least one of the side walls 104. The attachment apparatus 116 is formed to be attached with a corresponding attachment apparatus 116 on a second toy wheel display case, thereby allowing a user to connect two toy wheel display cases 100.

[0033] As can be appreciated by one in the art, there are numerous techniques for forming attachment apparatus that enable the detachable attachment of two objects. As a non-limiting example, the attachment apparatus 116 includes two elongated ridges 117 that span the height 118 of the side wall 104. Each of the elongated ridges 117 includes elongated grooves 120 that run the length of the elongated ridge 117. Additionally, each of the elongated ridges 117 includes an outer edge 122 that is formed to fit within the elongated groove 120 of an attached second display case 100.

[0034] The attachment apparatus 116 may be attached with any number of side walls 104 to allow for connection with at least one additional display case 100. As a non-limiting example, and as shown in FIG. 2, the attachment apparatus 116 is attached with each of the six side walls 104. In this configuration, each one of the elongated ridges 117 is spaced from one another in one of two positions, a first position 200 and a second position 202. The elongated ridges 117 are spaced closer together in the first position 200 than they are in the second position 202. Additionally, the attachment apparatus 116 are formed on each of the six side walls 104 such that the elongated ridges 117 alternate from a first position 200 to a second position 202 on adjacent walls. By changing the spacing, a user may connect two toy wheel display cases 100 by connecting an attachment apparatus 116 in the first position 200 of a first display case 204 with the attachment apparatus 116 of a second toy wheel display case 206 that are in the second position 202.

[0035] Also shown in FIG. 2 are hanging holes 208. Because of the hexagonal shape, a user may desire to hang the display case 100 with a flat-side 210 up, or with a corner 212 up. The two hanging holes 208 are formed so that a user may select which direction to hang the display case 100.

[0036] In another aspect, and as shown in FIG. 3, the present invention also comprises a toy wheel 300. The toy wheel 300 includes a center hub 302 for connecting with the protrusion of the display case. The center hub 302 is formed in any suitable manner to be connected with the display case, a non-limiting example of which includes being hollow to allow a portion of the protrusion to enter into the hollow space of the center hub 302.

[0037] As shown in FIG. 4, the center hub 302 of the toy wheel 300 may be placed within the housing 102 and onto the protrusion 110. After being placed onto the protrusion

110, a user may encase the wheel 300 within the housing 102 by attaching the detachably attachable front wall with the housing.

[0038] FIG. 5 illustrates a toy wheel 300 encased within the display case 100. As shown, the detachably attachable front wall 108 is placed over the toy wheel 300. As illustrated in FIG. 5, both the toy wheel 300 and housing 102 are formed such that when the wheel 300 is attached with the housing 102, the wheel 300 is centrally disposed within the housing 102. Additionally, the toy wheel 300 is entirely supported by the protrusion such that no point on the wheel's 300 tire 500 touches any point on the side walls.

What is claimed is:

1. A toy wheel display case, comprising:
 - a housing having side walls, a back wall, and a detachably attachable front wall, and wherein at least one of the walls is formed of a clear material, thereby allowing a user to see through the wall;
 - a protrusion centrally formed on the back wall and extending into the housing, the protrusion being configured to allow for placement of a toy wheel, whereby a user may position the toy wheel onto the protrusion and encase the toy wheel within the housing by attaching the detachably attachable front wall.
2. A toy wheel display case as set forth in claim 1, wherein all of the walls of the housing are formed of a clear material, thereby allowing a user to place a toy wheel within the housing and view the toy wheel from multiple angles.
3. A toy wheel display case as set forth in claim 2, wherein the side wall comprises six side walls, thereby forming a hexagonal-shaped housing with the back wall and front wall being hexagonal-shaped.
4. A toy wheel display case as set forth in claim 3, further comprising an attachment apparatus formed on at least one of the side walls, the attachment apparatus being formed to be attached with a corresponding attachment apparatus on a second toy wheel display case, thereby allowing a user to attach two toy wheel display cases together.
5. A toy wheel display case as set forth in claim 4, wherein the side wall has a height and wherein the attachment apparatus includes two elongated ridges that span the height of the side wall, each of the elongated ridges including elongated grooves.
6. A toy wheel display case as set forth in claim 5, further comprising an attachment apparatus attached with each of the six side walls, and wherein each attachment apparatus includes two elongated ridges, with the elongated ridges being spaced from each other in one of two positions, a first position and a second position, the attachment apparatus being formed on each of the six side walls such that the elongated ridges alternate between a first position to a second position on adjacent walls, thereby allowing a user to connect two toy wheel display cases by connecting an attachment apparatus in the first position with the attachment apparatus of a second toy wheel display case that are in the second position.

7. A toy wheel display case as set forth in claim 6, wherein the detachably attachable front wall includes a raised circular portion, thereby allowing for placement of wheels of various widths.

8. A toy wheel display case as set forth in claim 7, further comprising a toy wheel for placement within the display case, the toy wheel having a centrally positioned hub, with the hub being formed to be attached with the protrusion.

9. A toy wheel display case as set forth in claim 8, wherein the wheel and housing are formed such that when the wheel is attached with the housing, the wheel is entirely supported by the protrusion with no point of the wheel's tire touching any point of the side walls.

10. A toy wheel display case as set forth in claim 1, wherein the side wall comprises six side walls, thereby forming a hexagonal-shaped housing with the back wall and front wall being hexagonal-shaped.

11. A toy wheel display case as set forth in claim 1, further comprising an attachment apparatus formed on at least one of the side walls, the attachment apparatus being formed to be attached with a corresponding attachment apparatus on a second toy wheel display case, thereby allowing a user to attach two toy wheel display cases together.

12. A toy wheel display case as set forth in claim 1, wherein the side wall has a height and wherein the attachment apparatus includes two elongated ridges that span the height of the side wall, each of the elongated ridges including elongated grooves.

13. A toy wheel display case as set forth in claim 12, further comprising an attachment apparatus attached with each of the side walls, and wherein each attachment apparatus includes two elongated ridges, with the elongated ridges being spaced from each other in one of two positions, a first position and a second position, the attachment apparatus being formed on each of the side walls such that the elongated ridges alternate between a first position to a second position on adjacent walls, thereby allowing a user to connect two toy wheel display cases by connecting an attachment apparatus in the first position with the attachment apparatus of a second toy wheel display case that are in the second position.

14. A toy wheel display case as set forth in claim 1, wherein the detachably attachable front wall includes a raised circular portion, thereby allowing for placement of wheels of various widths.

15. A toy wheel display case as set forth in claim 1, further comprising a toy wheel for placement within the display case, the toy wheel having a centrally positioned hub, with the hub being formed to be attached with the protrusion.

16. A toy wheel display case as set forth in claim 16, wherein the wheel and housing are formed such that when the wheel is attached with the housing, the wheel is entirely supported by the protrusion with no point of the wheel's tire touching any point of the side walls.

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