United States Patent

de Gelder et al.

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[54] DOLL DISPLAY STAGE WITH MOVABLE DOLL SUPPORT

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[52] U.S. Cl. ..... **46/13**, 40/106.31, 46/137, 46/32, 272/31 R

[51] **Int. Cl.** **A63h 7/00**

[58] **Field of Search** ..... 40/106.3, 106.31; 46/13, 126, 46/137, 138, 140, 136, 47; 272/31 R, 31 P; 273/85 B

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[57] **ABSTRACT**

A stage for displaying a fashion doll, which is economical, capable of compact packaging, and easily used by a child, comprising a frame with a platform along which the doll can move. A cardboard strip with gear teeth formed along one edge extends in an arc across the stage platform, and a doll holder with gear teeth at its periphery engages the teeth of the strip, so that as the doll holder moves in an arc across the stage it rotates to display the front and back of clothes worn by the doll. The doll holder is rotatably mounted at the outer end of a long arm which can be moved by a child from the side of the stage to move the doll holder along the stage. The stage frame is formed by a wide strip of cardboard whose ends are joined, one portion of the strip forming a curved front wall of the stage and the rest forming the rear wall, so that the frame can be stored as a flat package.

7 Claims, 9 Drawing Figures

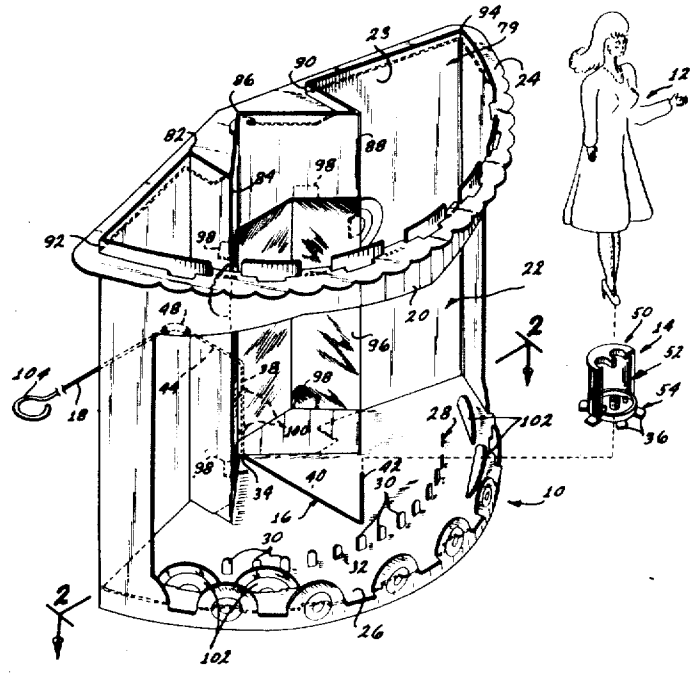


FIG. 1

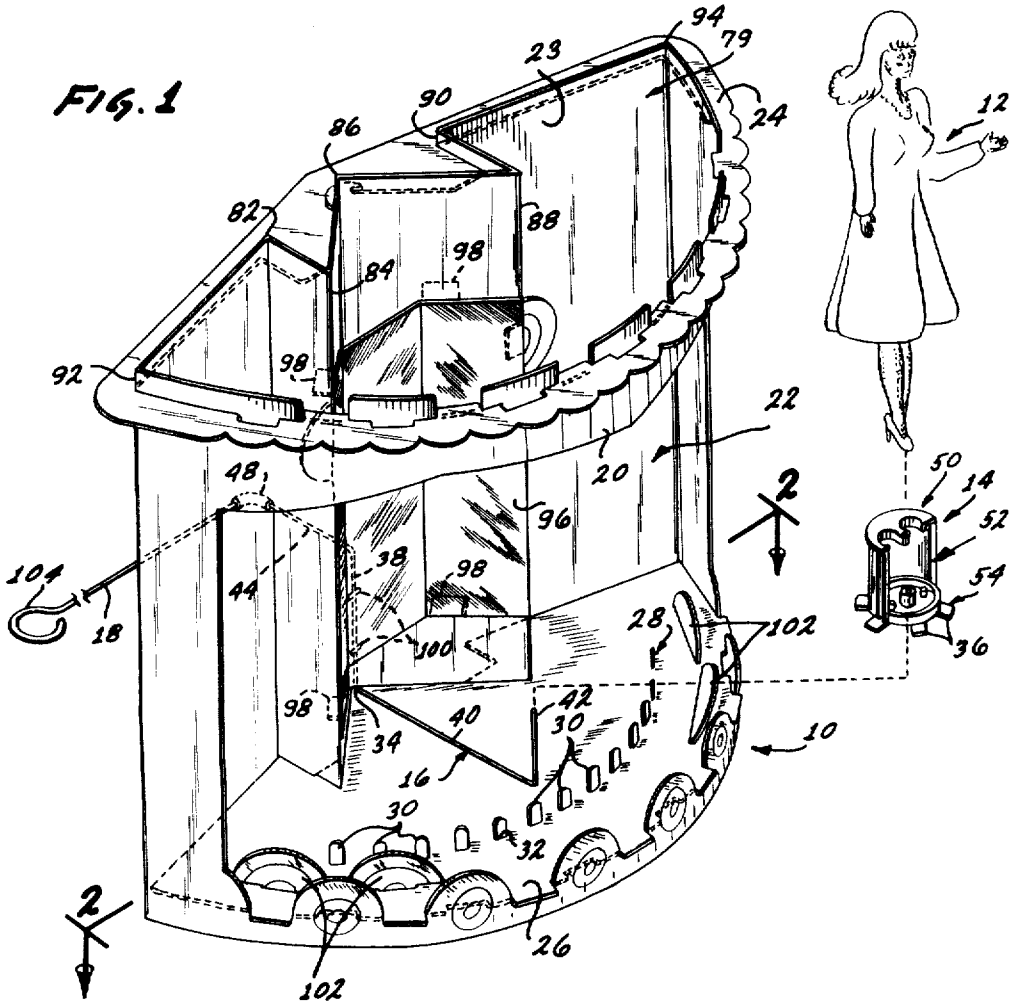
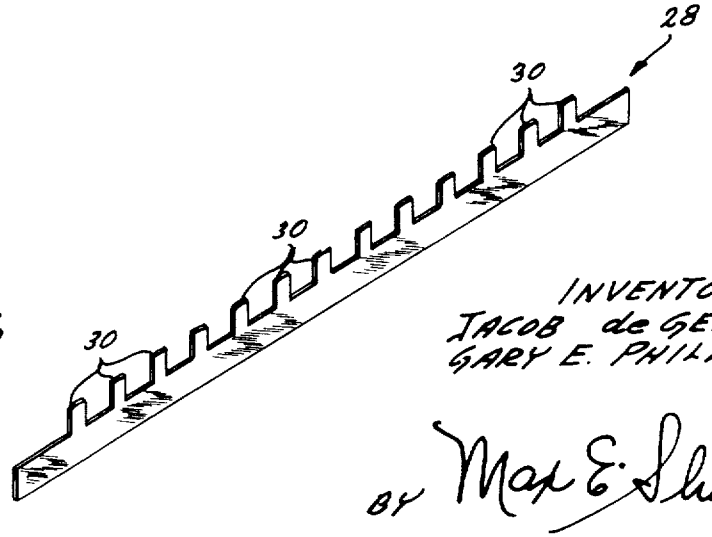


FIG. 6



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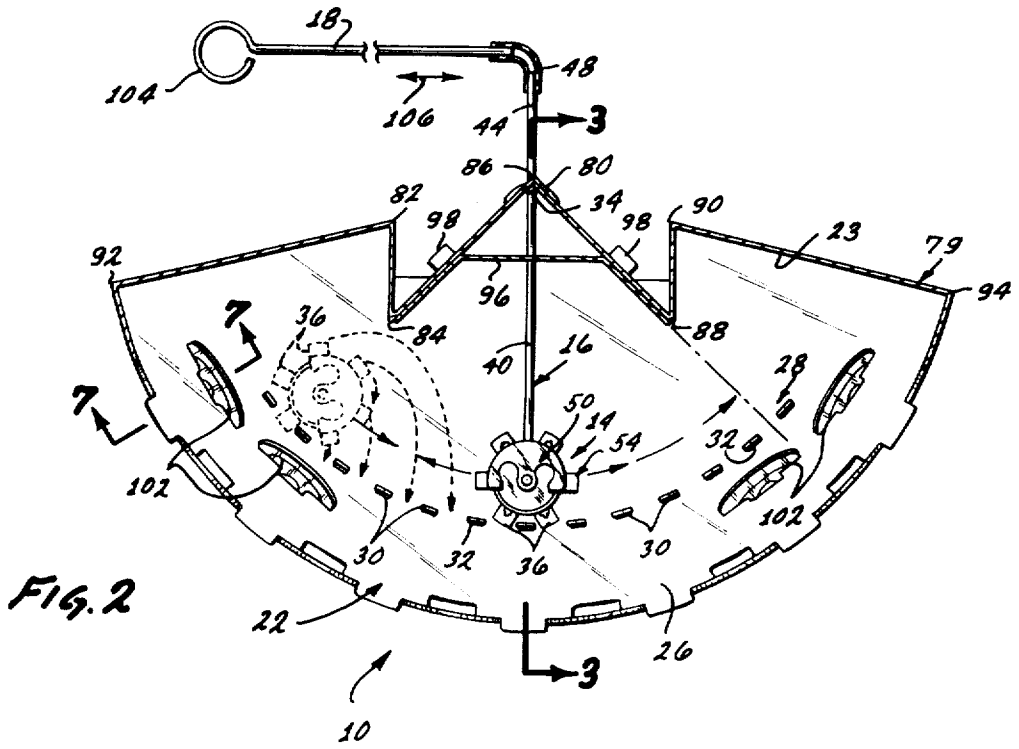


FIG. 2

FIG. 7

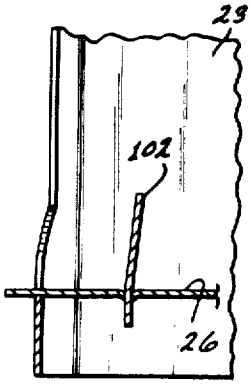
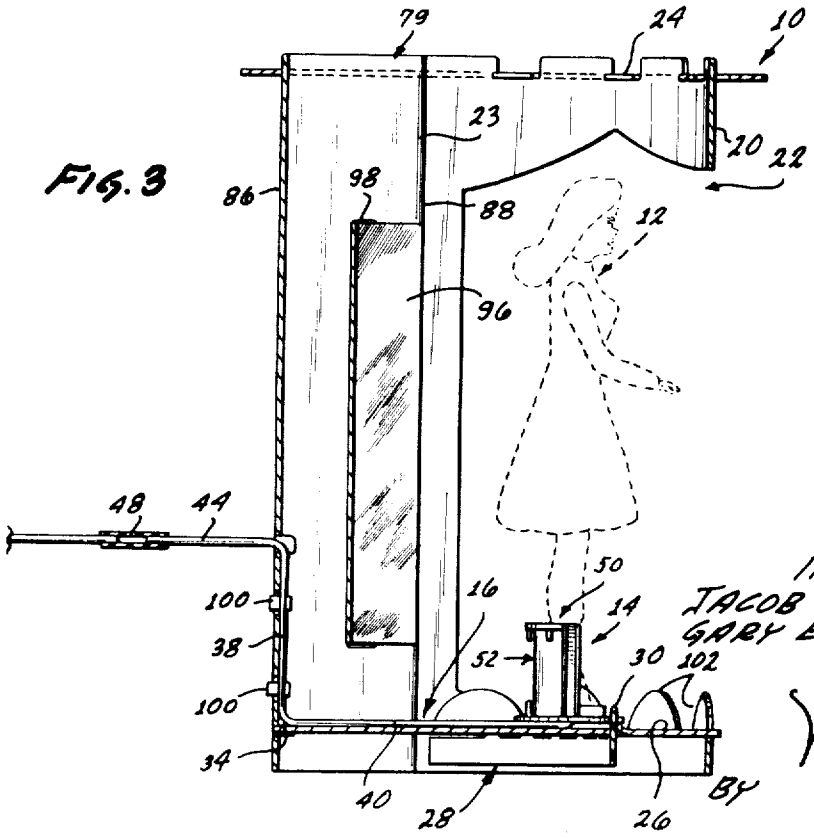


FIG. 3



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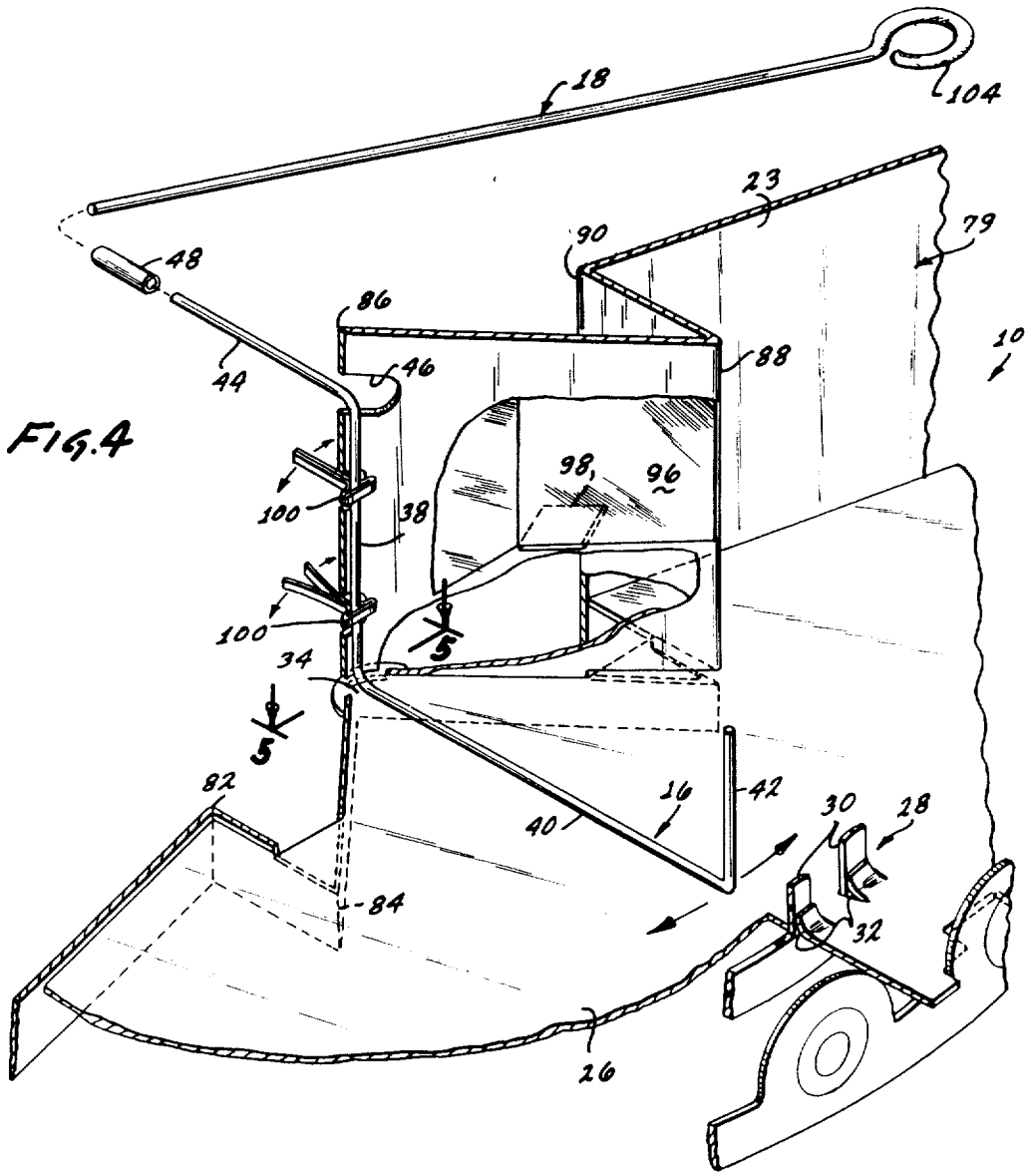


FIG. 4

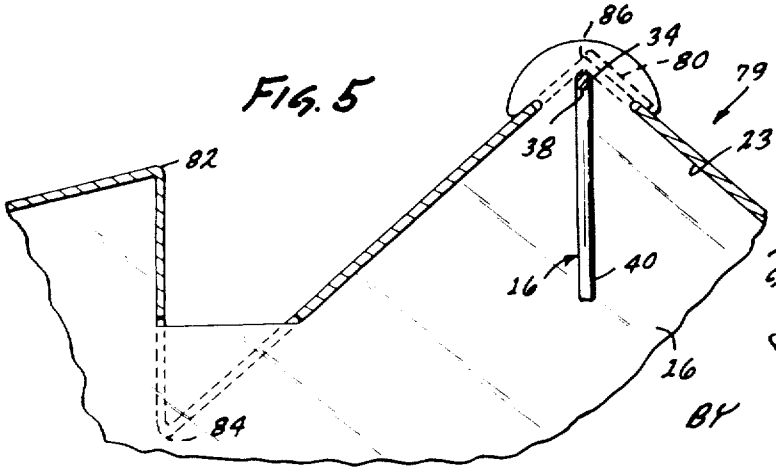


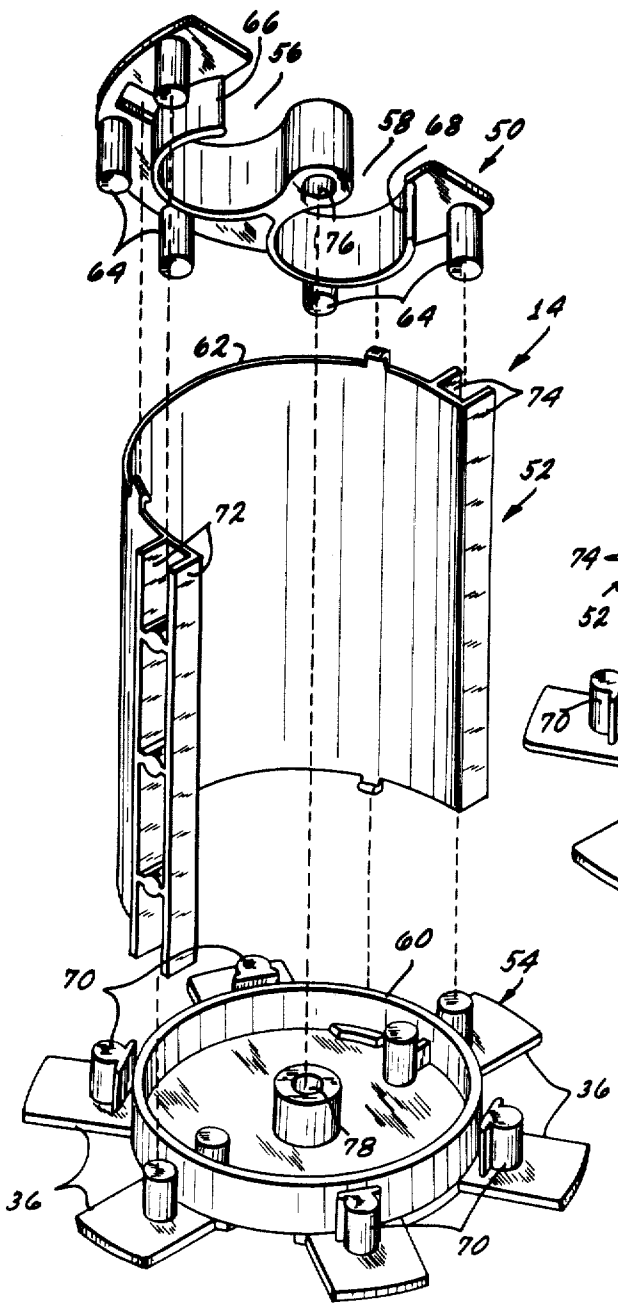
FIG. 5

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FIG. 8



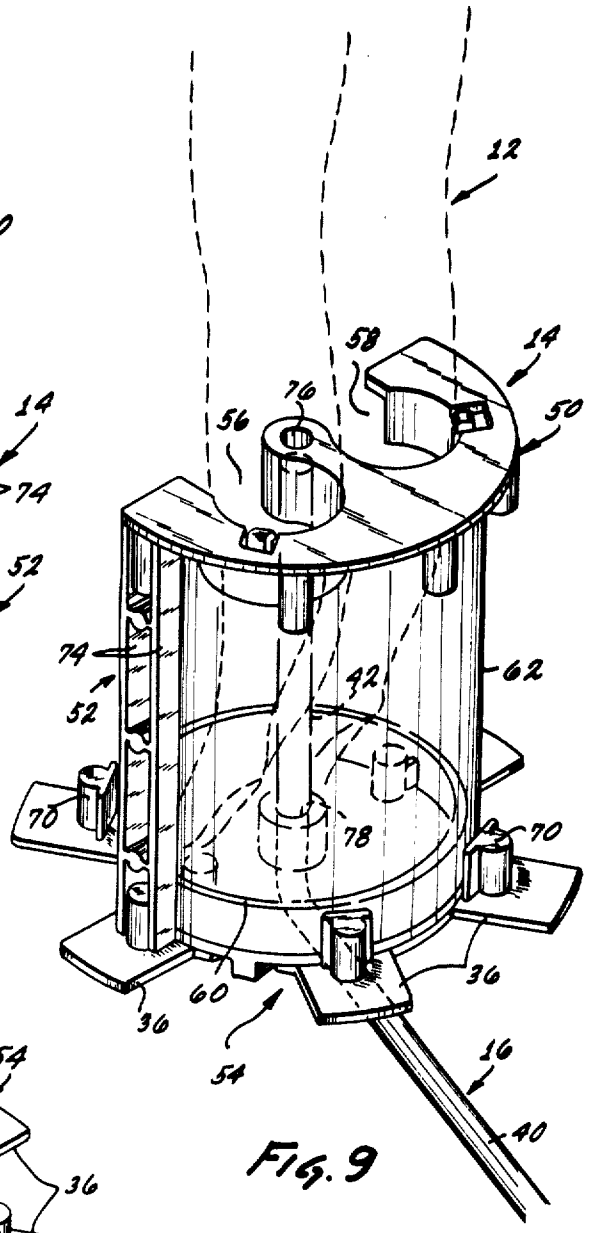


FIG. 9

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DOLL DISPLAY STAGE WITH MOVABLE DOLL SUPPORT

BACKGROUND OF THE INVENTION

1. Field of the Invention:

This invention relates to doll apparatus, and more particularly, to stages for displaying dolls.

2. Description of the Prior Art:

An entertaining activity for girls is the presentation of a fashion show which uses dolls. Such a show can be performed using a toy stage along which the doll moves. It is desirable that the dolls turn as they move from one side of the stage to the other to display their costumes at all angles. It is also desirable that the movement across the stage and the turning be accomplished remotely so that a child can operate the mechanism while observing the show but without appearing to directly manipulate the dolls. A stage and display apparatus is inherently bulky, since it is generally taller than the doll and has substantial width and depth. In order for the apparatus to be sold at a reasonable cost, it should be constructed in a simple manner and should be capable of being stored and shipped in the form of a flat package.

OBJECTS AND SUMMARY OF THE INVENTION

An object of the present invention is to provide a simple and economical apparatus for presenting doll fashion shows.

Another object is to provide a doll stage which can be held in a compact package for storage and which can be easily assembled for use.

In accordance with one embodiment of the present invention, apparatus is provided for displaying dolls which includes a stage and a doll holder that moves a doll across the stage while rotating the doll. The stage is formed by a wide strip of cardboard held in a loop, with one portion providing a curved front wall and the rest providing the rear wall of the stage. A pair of additional cardboard members serves as a bottom wall and top wall of the stage to hold the looped strip in an open configuration.

A strip of cardboard with gear teeth formed along one edge is bent into an arc and inserted into the bottom stage wall so that gear teeth extend from the bottom wall. The doll holder has gear teeth about its periphery so that as it moves across the stage while engaged with the teeth of the cardboard strip, it turns to display the doll from all angles. The doll holder is rotatably mounted at the end of a rod that can be pivoted from a position behind the back wall. A child can pivot the rod to move the doll holder in an arc from one side of the stage to the other while the doll holder rotates.

The novel features of the invention are set forth with particularity in the appended claims. The invention will be best understood from the following description when read in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a doll display apparatus constructed in accordance with the invention, showing the manner of mounting a doll holder and doll thereon;

FIG. 2 is a view taken on the line 2—2 of FIG. 1;

FIG. 3 is a view taken on the line 3—3 of FIG. 2;

FIG. 4 is a partial perspective view of the apparatus of FIG. 1;

FIG. 5 is a view taken on the line 5—5 of FIG. 4;

FIG. 6 is a perspective view of the tooth member of the apparatus of FIG. 1;

FIG. 7 is a view taken on the line 7—7 of FIG. 2;

FIG. 8 is a perspective exploded view of the doll holder of the apparatus of FIG. 1; and

FIG. 9 is a perspective view of the doll holder of FIG. 8 in an assembled configuration.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

As shown in FIG. 1, the fashion show apparatus includes a stage frame or stage 10 for displaying a fashion doll 12 by moving it along the stage from one side to the other while turning the doll so that its costume can be seen from all angles. The doll 12 is held in a doll holder 14 that is mounted on a rod 16. The rod can be manipulated by moving a handle 18 behind the stage frame. A child may sit at one side of the stage to view the fashion show while manipulating the handle 18 with one hand, to cause a doll to move along the stage while it turns.

The stage frame 10 includes a front wall 20 with a large aperture 22 formed therein through which the doll can be seen, a rear wall 23, an upper wall 24, and a floor or platform 26. A tooth member 28 which having the form shown in FIG. 6, has many teeth 30 that project through slots 32 in the platform member 26. The slots 32 are formed along an arc whose center is at 34, so the tooth member 28 is held in a curved configuration and the teeth 30 extend in an arc along the stage platform. The doll holder 14 has gear teeth 36 around its periphery which can engage the teeth 30 of the tooth member 28. Accordingly, when the doll holder is moved in an arc across the stage, it rotates. This allows the children to see the doll 12 from all angles in a manner somewhat simulating the movements of actual fashion models in fashion shows.

As best shown in FIG. 4, the rod 16 has a center portion 38 which is pivotally mounted on the back wall 23 of the stage frame. An outer portion 40 of the rod extends substantially horizontally immediately above the platform 26, with the outer end 42 of the rod bent to extend vertically near the teeth 30. The rod has an inner portion 44 that extends through an aperture 46 formed in the rear stage wall 23, the inner rod portion 44 extending substantially horizontally behind the back wall. The inner portion 44 is coupled by a flexible tube 48 to the handle 18, so that the handle can be manipulated from one side of the stage regardless of the pivotal position of the rod.

FIGS. 8 and 9 illustrate details of the doll holder 14 which carries the doll 12 across the stage while rotating it. The doll holder is formed from three parts, including a top holder member 50, a side holder member 52, and a bottom holder member 54. The top member 50 has a pair of recesses 56, 58 which can receive the legs of a doll, while the bottom member has an upwardly extending flange 60 which can abut the toes of a doll, so the doll is held firmly in an upright position on the doll holder. The side holder member 52 is constructed of flexible material, and includes a sheet portion 62 which can be bent from a flat configuration into the curved configuration which is illustrated.

When the side holder member 52 is bent to the curved configuration, it can be inserted between projections on the top member 50 that hold the side member in its curved configuration. These projections include five downwardly extending projections 64 that surround the side member 52 and flanges 66, 68 about the leg receiving recesses that abut the inside of the side member 52. Similarly, the bottom of the side member 52 can be received between projections 70 on the bottom holder member 54 and the flange 60 of the bottom member. In order to prevent rotation of the side member 52, it is formed with two pairs of walls 72, 74 that receive two of the top member projections 64 and two of the bottom member projections 70. The top and bottom members 50, 54 are of low height, while the side member 52 is initially almost flat, so the entire holder can be packaged in a small height. It may be noted that the top and bottom members have apertures 76, 78 that can receive the outer end 42 of the rod 16 so that the doll holder is rotatably mounted on the rod.

The doll display apparatus is designed to enable all parts to be contained in a flat package. As shown in FIGS. 1 and 2, the front wall 20 and rear wall 23 are part of a wide sheet of material such as cardboard which has been formed into a loop 79, with the ends overlapping and glued together at 80. The front wall 20 is curved along the arc of a circle while the rear

wall 23 has five fold lines at 82, 84, 86, 88, and 90. The front and rear walls are joined to each other at fold lines 92 and 94. These two walls are constructed so that when the front wall 20 is laid flat, its width between the fold lines 92 and 94 is equal to the width of the rear wall 23 when it is laid flat. Thus, the loop which forms the front and rear walls can be packaged as a single flat item with a thickness equal to the thickness of two sheets of cardboard out of which the member is constructed.

The upper wall 24 is a flat sheet, and it is constructed to surround the top of the front and rear walls to hold them in the configuration shown wherein the front wall extends in an arc shape while the rear wall has the illustrated zig-zag pattern. The platform 26 at the bottom of the frame is constructed to fit within the space defined by the front and rear walls to hold the walls in the desired configuration. The upper wall 24 and platform 26 have scalloped edges where they extend along the front wall, to fit securely into the front wall and to provide a decorative trim. As mentioned earlier, the tooth member 28 is also formed of an originally flat strip of cardboard, so it also can be held in a flat package. In addition to these cardboard members, a mirror member 96 is provided for concealing the region where the rod 16 is pivotally mounted on the stage frame, and to add decorative trim. The mirror member 96 has tabs 98 that project through corresponding slots in the back wall 23 to hold the mirror member in place.

The doll display apparatus can be readily assembled by first setting up the loop member 79 which forms the front wall 20 and rear wall 23 in the illustrated configuration. The platform 26 and upper wall 24 are then installed to hold the front and rear walls securely in position. The rod 16 then can be installed as shown in FIG. 4, by projecting the outer end 42 and outer portion 40 through the aperture 46 in the back wall. With the center portion 38 of the rod extending vertically along the front face of the back wall at the fold line 86, a pair of fasteners 100 is installed through holes in the back wall to hold the rod in place. The fasteners 100 serve as rotational bearings in conjunction with the back wall 23, while the bottom of the aperture 46 supports the rod so that the outer portion 40 is held slightly above the platform 26 and does not scrape along it. After the rod is installed, the mirror 96 can be installed to conceal the center portion 38 of the rod and the fasteners 100.

After the rod 16 has been installed, the tooth member 28 may be mounted by projecting the teeth 30 thereof through corresponding slots 32 of the platform 26. The slots 32 are elongated to receive relatively wide teeth 30. This allows a thin cardboard strip to be utilized for the tooth member 28 and yet provide relatively strong teeth 30. After the tooth member 28 is installed, the doll holder 14 can be assembled in the manner previously described, and it can be installed on the outer end 42 of the rod by projecting the outer end into corresponding apertures in the holder. A doll can be mounted on the doll holder by simply inserting the legs of the doll into the recesses formed in the doll holder. For a more attractive appearance, decorative members 102 can be installed in the platform 26.

As indicated in FIG. 2, once the display apparatus has been assembled, and a doll has been installed on the doll holder, a child can grasp the ring 104 at the end of the handle 18 and push or pull it in the direction of arrows 106 to cause the rod 16 to pivot about a vertical axis. This causes the doll holder to move along the teeth 30 and across the stage, while turning to display its costume from every angle. A child can hold the handle ring 104 in her hand while seated at one side of the stage to view the fashion show.

Thus, the invention provides doll display apparatus which allows a doll to be easily installed and moved across a stage while turning. The movement of the doll is accomplished by a child simply pushing or pulling on a handle while the child is at one side of the stage observing the show. The mechanism which links the manually moved handle with the doll is not apparent to observers of the show, so that the doll appears to be moving and turning by itself. The entire apparatus, including the stage, doll holder and means for moving the doll holder across the stage while rotating it, can all be contained in a flat package for economical storage and shipment. All of the members can be constructed of inexpensive material, such as sheets of cardboard for the stage frame, simple bent rods for the linkage, and only three molded parts for the doll holder.

Although particular embodiments of the invention have been described and illustrated herein, it is recognized that modifications and variations may readily occur to those skilled in the art and, consequently, it is intended that the claims be interpreted to cover such modifications and equivalents.

What is claimed is:

1. Apparatus for displaying a doll comprising:
means defining a stage floor;
means defining a plurality of gear tooth members mounted in spaced relation along said stage floor and in stationary relation thereto;
a doll holder having a plurality of gear teeth; and
means for supporting said doll holder for pivotal movement and for movement along said stage with said gear teeth engaging said gear tooth members, whereby said doll holder turns as it moves along said stage, said means for supporting said doll holder comprising a manually movable rod, movable above said stage floor.

2. The apparatus described in claim 1 wherein:
said gear tooth members are arranged along substantially an arc of a circle; and
said rod is pivotally mounted on said stage at substantially the center of said circle, said rod having an outer end pivotally supporting said doll holder.

3. The apparatus described in claim 2 wherein:
said stage includes a back wall with an aperture therein;
said rod has a center portion extending substantially vertically along said back wall and pivotally mounted therein by said pivotal mounting and has a second portion extending rearwardly from said center portion with a horizontal directional component through said aperture; and
said means for supporting said doll also includes an elongated handle and a flexible coupling joining one end of said handle to said second portion of said rod.

4. The apparatus described in claim 1 wherein:
said stage includes a sheet of material defining said floor, said sheet having a plurality of elongated slots formed substantially along the arc of a circle, with the length of each slot extending circumferentially along the arc; and
said means defining a plurality of gear tooth members comprises a strip of flexible sheet material with a plurality of projections formed at one edge thereof for reception in said slots when said strip is bent to a curved configuration, whereby to enable construction of the apparatus from flat sheet material.

5. The apparatus described in claim 1 wherein:
said doll holder includes upper, lower and side walls;
said lower wall has said plurality of gear teeth spaced thereabout and has upwardly extending projection means defining a curve;
said upper wall has projection means defining the same curve as the projection means of the lower wall, and a pair of recesses within said projection means for receiving the legs of a doll; and
said side wall comprises a sheet portion of flexible material which can be bent to fit within the curves defined by said projection means of said lower and upper walls.

6. Apparatus for displaying a doll comprising:
a first stage member including a strip of flexible sheet material with ends joined, one portion along said strip forming a stage back wall with upper and lower edges and the rest of said strip forming a stage front wall with upper and lower edges and with opposite sides foldably joined to said back wall, said front wall defining an opening through which dolls can be displayed and said back wall having at least one vertically extending fold line;

a platform member constructed of sheet material and formed to closely engage said front and rear walls adjacent the lower edge thereof to hold them in a predetermined configuration wherein said front wall is curved along its length, and the opposite sides of said back wall extend at an angle of less than 180° with respect to each other, whereby to enable storage in a flat configuration and setting up into a stage configuration;

said platform member having a plurality of slots therein; and including

a strip of sheet material with projections formed along one edge for reception in said slots of said platform member;

a doll holder with a plurality of gear teeth for engaging said projections on said strip; and

means rotatably supporting said doll holder and manually operable to move said doll holder along said slots in said platform member, so that said doll holder engages successive ones of said projections to turn said doll holder.

7. The apparatus described in claim 6 wherein:

said stage back wall has an aperture therein positioned along said fold line therein; and

said means rotatably supporting said doll holder includes a rod which has a center portion for extending vertically along said fold line of said stage back wall, an outer portion for extending horizontally along said platform member and pivotally supporting said doll holder, and an inner portion for extending with a horizontal directional component through said aperture in said stage back wall, and a handle coupled to said inner portion for manual grasping and manipulation.

* * * * *