ANIMATED CHILDREN'S MARIONETTE THEATRE

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ABSTRACT
A children's marionnette theatre for self-propelled puppets comprising a housing defining a stage where puppets are displayed and an upper ceiling member disposed over the stage area. The upper ceiling member has a maze of open slots or grooves formed in it through which supporting guy wires for the puppets extend. A self-propelled puppet transport vehicle of the wound mechanical spring or battery operated type is supported on the ceiling member and is designed to run along the pathway defined by the open slots or grooves of the ceiling member with the puppets secured thereto by guy wires extending through the open slots or grooves. In this way the puppet transport vehicle supports and moves the puppet-like figures displayed on the stage. The theatre preferably is collapsible and may employ two-dimensional or three-dimensional puppet figures. The open slots or grooves in the ceiling member preferably are open ended whereby the puppet transport vehicles easily may be loaded on and unloaded from the ceiling member from a side or the back of the theatre. The puppet transport vehicles may be designed to include an additional mechanism for imparting movements to arms, legs, or other members of the puppet like figures, and the theatre is designed to employ one or a plurality of puppets displayed on the stage simultaneously.

23 Claims, 17 Drawing Figures
ANIMATED CHILDREN'S MARIONETTE THEATRE

BACKGROUND OF INVENTION

1. Field of Invention

This invention relates to a new and improved children's marionette theatre.

More particularly, the invention relates to a children's marionette theatre employing animated puppet-like figures which are readily and economically fabricated, which can be set up and operated by children easily and can be folded or collapsed for easy transport and storage.

2. Prior Art Situation

There are a number of children's marionette theatres available today which allow children to put on puppet shows within their homes. Some of these theatres are intended for use with hand puppets, while others are designed for use with string-operated puppets. The present invention is intended for use with string-operated puppets.

Herefore available children's marionette theatres using string-operated puppets, require that the children provide all of the movement and extraneous motion to the arms and legs of the puppets, and at the same time simulate a voice or other sounds and provide direction to a play or puppet act being presented. The diversion of their attention to so many efforts imposes an overwhelming chore and challenge to the skills of most children and as a consequence the puppet plays suffer along with the interest of the children in either watching or presenting the plays for other children. To overcome this situation, the present invention was devised wherein a part or all of the animation of the puppet characters is provided by a self-propelled puppet transport vehicle which may be of the wind-up or battery operated variety. By thus relieving the child of the burden of moving the puppets, the child presenting the play can devote more of his or her attention to the audio presentation or the overall direction of the puppet play.

SUMMARY OF THE INVENTION

It is therefore, a primary object of the invention to provide a new and improved children's marionette theatre employing animated puppet-like figures.

Another object of the invention is to provide such a children's marionette theatre which can be readily and economically fabricated, easily set up, operated and reassembled for storage by the children, and can be folded or collapsed for easy transport and storage.

In practicing the invention a childrens marionette theatre is provided comprising a housing defining a stage area on which the puppets are displayed and also having an upper ceiling member disposed over the stage area. The upper ceiling member has open slots or grooves formed therein through which supporting guy wires for the puppets extend. At least one self-propelled puppet transport vehicle of the mechanical spring wind-up or battery operated variety is provided for traveling in a predetermined path along the upper surface of the ceiling member. The self-propelled puppet transport vehicle has a projection on the bottom such as a hook or the like which extends down through the open slots or grooves in the ceiling member and serves to guide the transport vehicle along a predetermined track or path. The projection on the bottom of the self-propelled puppet transport also serves as a means for securing the guy wires that support the puppet-like figures displayed on the stage below.

The housing forming the children's marionette theatre preferably is collapsible so that it easily may be folded up for transport and storage and the open slots or grooves formed in the ceiling member of the housing preferably are open ended so as to allow the puppet transport vehicles to be easily loaded on the top surface of the ceiling member from the side or back of the marionette theatre. The open slots or grooves may define a single maze or a plurality of different or separate tracks formed in one ceiling member allowing several puppet transport vehicles to move their suspended puppets across the stage simultaneously or sequentially in accordance with a predetermined pattern of movement as called for by the plot in a play being presented.

The puppet like figures employed in the theatre may be two-dimensional figures of cardboard or the like, or alternatively may be three-dimensional figures formed from plastic. The self-propelled puppet vehicle may be a mechanical spring wound toy tractor having a hook secured to its under carriage or alternatively the vehicle may be battery operated. Additionally, the self-propelled transport vehicle may include a mechanical linkage for imparting movements to the arms, legs or other members of the puppet-like figures being transported by the vehicle.

These and other objects, features and many of the advantages of this invention will be appreciated more readily as the same becomes understood by reference to the following detailed description when considered in connection with the accompanying drawings wherein like parts in each of the several figures are identified by the same reference character and wherein:

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1, is a rear view of a cardboard or plastic housing that forms the children's marionette theatre showing the stage area and side walls hinged to the front wall;

FIG. 2, is a rear view of the housing shown in assembled condition with side walls 13 and 14 folded in place and the stage and upper ceiling member supported on the folded sidewalls;

FIG. 3, is a upper plan view of a two-piece sandwich-like ceiling member comprising a part of the theatre housing and illustrates a maze formed by an opening or grooved track cut through a lower supporting surface of the ceiling member;

FIG. 3A is a side sectional view of the ceiling member shown in FIG. 3 taken through plane 3A -- 3A;

FIGS. 4 and 4A are schematic illustrations of a suitable, mechanically wound spring type of self-propelled puppet transport vehicle that is designed to be run along the top of the lower supporting surface of the two-piece ceiling member as shown in FIG. 3A at 25 and is caused to track along the grooved maze formed in the lower supporting surface of the ceiling member;

FIG. 5, is a side view of a suitable-puppet like figure for use in the children's marionette theatre;

FIG. 6, is a front plan view of a puppet clown usable with the marionette theatre;
FIG. 7, is a side view of a horse and lady rider which also may be used with the children's theatre; FIG. 8, is a side view of a puppet astronaut descending by parachute usable with the theatre; FIG. 9 is a side view of a space vehicle also comprising one of the puppet-like figures usable with the children's marionette theatre; FIGS. 10, 10A and 10B, comprise front, side and rear views of an alternative embodiment of children's marionette theatre that has the shape of a circus tent supported by suitable rigid wire struts that may be collapsed upon disassembly; FIGS. 11 and 11A, comprise a top plan view and a sectional side view, respectively, of the construction of a suitable ceiling member for the embodiment of the marionette theatre shown in FIGS. 10, 10A and 10B; and FIG. 12, is a top plan view of an alternative form of ceiling member showing a plurality of tracks or grooves formed in the ceiling member to allow simultaneous or parallel operations of puppet-like figures on the stage of the theatre.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

FIG. 1 is a rear view of a housing 11 having a central opening 12 formed therein which defines the stage area of the children's marionette theatre.

The housing 11 may be formed of a suitable material such as cardboard, plastic or the like and has side walls 13 and 14 hinged to the lower half of the front walls of the housing 11. By folding the hinged side walls 13 and 14, backwardly towards the reader, a three-sided box-like housing will be formed in the manner shown in FIG. 2. A flat, lower platform 15 is seated and secured to the side wall 13 and 14 by any suitable means such as folded tabs, spring clips or the like and holds the sides of the folded housing in assembled relation. The platform 15 also forms the central stage on which the puppet-like characters and objects will be displayed through the opening 12.

Mounted over the stage member 15, and secured over the upper edges of the folded side walls 13 and 14, is an upper, two-piece, sandwich-like ceiling member 16 whose cross-sectional construction is illustrated in FIG. 3A of the drawings. The front of housing 11 which defines the opening 12 normally will conceal the ceiling member 16 from the view of the audience.

As shown in FIGS. 3 and 3A of the drawings, the upper ceiling member 16 is comprised by a lower surface member 17 secured by supporting struts 18 to an integral, upper supporting surface member 19 with the surfaces 18 and 19 preferably being comprised by molded plastic sheets secured together in a sandwich-like manner by the struts 18 with a suitable adhesive, threaded connection or the like. The lower surface 17 as shown in FIG. 3 has an open-ended groove or track 21 commencing at 22 on one side of surface 17 and terminating at 23 on the opposite side. The supporting struts for the upper supporting surface 19 are located a sufficient distance away from the opening or grooved track 21 to assure that adequate passageway will be allowed for a puppet transport vehicle to move along the maze defined by the grooved track 21 without interference from the supporting posts 18. The vertical spacing between the supporting surface 19 and the lower grooved surface 17 is sufficient to accommodate movement of the self-propelled puppet transport vehicles such as shown at 25 to travel within the space defined between these two surfaces.

FIGS. 4 and 4A of the drawings illustrate one form of construction for the self-propelled puppet transport vehicle 25. The puppet vehicle may comprise nothing more than a mechanical spring wound toy tractor having wheels 31 supported within a body 32 that contains a coil spring 33 capable of being wound around a shaft 34 by key 35. Shaft 34 has a drive gear 36 keyed to it which meshes with and drives a speed increasing gear 37 that in turn drives a pinion 38 and worm gear 39 secured to the axle that drives wheels 31. Other drive configurations are, of course, possible and for that matter a small battery operated electric motor drive could be employed for the self-propelled puppet transport vehicles 25.

In certain embodiments of the invention, additional mechanical linkage may be provided for imparting movement to arms, legs and other members of the puppet figures being displayed. For this purpose, a speed reduction gear 41 meshes with the main drive gear 36 and has a pin 42 supported to its periphery. The pin 42 is engagable with the lower cam surface of a cam member 43 that may be brought into engagement with pin 42 through appropriate actuation of a pivoted lever arm 44 having the cam member 43 secured to its end 45. The pivot 46 for the lever arm 44 should allow both horizontal and vertical movement of the extension arm 47 which supports cam member 43. A hook 48 is secured to the extension arm 47 opposite from the cam member 43 and a return spring 49 may be included for assuring that the lower cam surface of cam member 43 will always engage the top of the pin 42 upon the lever arm 44 being moved leftward in the direction of the arrow to cause cam member 43 to engage pin 42. With this arrangement, as the pin 42 is rotated, the extension arm 47, and accordingly hook 48, will cause to reciprocate up and down for the purpose of imparting movement to extraneous members of the puppet figures such as arms, legs, etc.

Where it is desired not to impart such movement to the extraneous members, the cam member 43 can be swiveled out from engagement with pin 42 thereby unloading the main coil spring 33.

To complete the self-propelled puppet transport vehicle 25, a pin, hook or other projection shown at 50 is provided with the projection 50 being designed to extend down into the groove or track opening 21 in the lower supporting surface 17 of the upper ceiling member. Thus, upon the transport vehicle be wound up by the child, and placed on the ceiling member with the wheels 31 engaging the lower supporting surface 17 and the projection 50 extending down into the groove, the unwinding of the spring will cause the vehicle to move along the track maze thereby following a predetermined pattern of movements. If desired, different mazes may be provided with each theatre in order to obtain different types of movement for the puppets in accordance with the plot of a particular play or performance being presented.

It should be noted at this point that certain types of mazes may not require the two-piece, sandwich-like construction of ceiling member 16 shown in FIGS. 3 and 3a in which case only a single planar surface member would be required. For example, if the track or predetermined path to be defined by the opening or slot is
a straight line, simple arc, semi-circular, or other comparable configuration, the ceiling member could be comprised by a number of adjacent pieces which are self supporting and are held in place by clipping them onto the opposed top edges of the backwardly folded sidewalls 13 and 14. With such an arrangement the number of adjacent pieces would be mounted together on the sidewalls in the manner of a jigsaw puzzle but spaced-apart sufficiently to define the predetermined pathways or tracks for the puppet transport vehicle. As stated previously, the pieces should be self supporting and also should provide rigidity to the sidewalls 13 and 14 of housing 11. Also, with this arrangement it would not be necessary to use puppet transport vehicles having means for imparting ancillary movement to arms, legs, etc., since wires, strings, etc., attached to such members of the puppets readily could be run through the track openings and allow an operator to manipulate such members from the top of the housing while the transport vehicle moves the puppet across the stage. In this manner certain cost savings can be achieved in the manufacture and sale of a animated marionette theatre. Finally, it should be further noted that, regardless of the type of construction used for ceiling member 16, the grooved maze 21 is open ended at both of its sides 22 and 23 so as to facilitate loading of the puppet transport vehicle onto ceiling member 16 at either of the sides whereby the vehicle will be caused to track through the entire maze and then come back to the other side without further attention by the child or other operator.

FIG. 5 of the drawings is a side view of a suitable puppet figure that may be used with the Children's theatre comprising the invention. The puppet is formed by a body or torso 51 having legs 52 to which weights 53 are secured in order to assure that the figure will remain in an upright position while it is on the stage. The head 54 of the puppet has guide wire or guy string projected to it and has a loop 56 formed on its end for placement over the downwardly extending projection or hook 50 of the puppet transport vehicle 25 to which it is attached. Each of the arms 57 and 58 may be pivoted and are secured tosimilar guys 55 having loops 56 for attachment to the hooks 48 of the transitory mechanism for providing up and down motion to the extraneous members such as arms and legs. The arms which are to be moved up and down, should include weights 59 to assure return movement of these members. If desired, the guys attached to the arms or legs of a puppet may be extended through the groove 21 up and out through the top of the housing 11 defining the play stage whereby allowing the child the freedom of choice to manipulate these members in the manner of conventional puppets. For this purpose, a control opening could be formed in the top sheet member 19. Thus, lower cost versions of the theatre may not employ an extraneous movement mechanism such as that comprised by the cam member 43, in the construction of the puppet transport vehicle 25. With such an arrangement, extraneous movement of legs, arms, etc. of the puppet-like figures would have to be provided by the child presenting the play, while the transport vehicle would cause the puppet figures to perform basic movement across the stage.

FIGS. 6, 7, 8 and 9 illustrate different forms of puppet-like characters that may be used with the children's marionette theatre comprising the invention and serve to illustrate the great variety of types of presentations that may be made with the theatre. In FIG. 6, a clown in a clown costume is shown for securement to the puppet transport vehicle through the guys 59 and hooks 56. FIG. 7 illustrates a girl horseback rider on a horse. In place of movement of the horseback riders arms, the horse's legs or tail could be caused to move either by the child directly or by attachment to the extraneous movement hook 48 of transport vehicle 25. FIG. 8 illustrates the figure of an astronaut descending in a parachute while FIG. 9 represents a puppet space vehicle usable in conjunction with the astronaut of FIG. 8 to present space plays. Dragons, knights in armor, and a multitude of other types of characters can be prepared for use in conjunction with the children's theatre. Further, records or prerecorded voices of actors and actresses could be used in conjunction with the theatre thereby leaving it up to the child to provide only the direction of the play such as the loading of the records on the record player together with loading of the characters in accordance with the plot on the puppet transport vehicles at proper times in the course of the play. Musical records especially prepared for musical presentations would have an additional educational value in building up musical appreciation on the part of the child conducting the show or any of the children who watch the play.

FIGS. 10, 10A and 10B comprise front, side and back views of an alternative, exterior form for the marionette theatre. In the embodiment of the theatre shown in FIGS. 10, 10A and 10B, a circus tent theatre is employed wherein wire struts shown at 61 in FIG. 10B are secured to a circular supporting platform 62 that also forms the stage. Alternatively, platform 62 can be omitted and the circuit tent or other form of theatre placed directly on a floor, tabletop or the like so that the surface of the floor, tabletop, etc., forms the stage area. Collapsible wiring 65 is shown in the form wheel spokes radiate from a central hub and are centrally hinged at 64 to define a peaked circus tent top over which a cloth or canvas canopy having frilled curtains shown in FIG. 10 is draped. An upper ceiling member 16 is supported on the wire struts 61 and comprises a base for the collapsible struts 63 forming the peaked circus tent top upon the assembly being mounted.

The sandwich-like two-piece ceiling member 16 is shown in greater detail in FIGS. 11 and 11A of the drawings wherein it is seen that the lower ceiling member surface 17 has a grooved track 21 formed therein which defines a predetermined maze. The lower ceiling member surface 17 having grooved maze 21 is supported from an upper integral supporting surface 19 by suitable struts 18 which secure the two members 17 and 19 together to form the composite sandwich-like ceiling member 16. If desired, different forms of mazes such as shown in FIG. 12 may be employed. Here again, where the nature of the maze allows it, only a single piece ceiling member comprised of a number of adjacent jig saw parts as described earlier, could be employed to form the ceiling member 16. If desired a plurality of grooved openings such as shown at 21A, 21B and 21C may be formed in the ceiling member of either forms of ceiling member to allow a plurality of puppet characters to be presented on the lower stage simultaneously at any given time in a performance. Further, an interchangeable ceiling member for use with astronaut puppets, may have elliptical circle tracks as desired and
on which the transport vehicle may carry planets. One side of the ceiling member may be higher than the other to provide a slight angle. The ceiling member may be fabricated from a clear plastic to improve lighting, visualization, etc. In the circus tent design theatre, the ceiling member may fit in a projection on a support frame at a side of the stage slightly higher than projection on the opposite frame and a backdrop with random small openings for a string of mini lights may be used with the astronaut or other puppet theatre.

In other respects, the embodiment of the invention shown in FIGS. 10–12 is entirely similar in construction and operation to the embodiment shown in FIGS. 1, 3 and 3A, and employs similar self-propelled puppet transport vehicles 25 together with puppets such as shown in FIGS. 5 through 9 to provide animation for the puppets.

From the foregoing description it will be appreciated that the invention provides a new and improved children's marionette theatre employing animated puppet-like figures. The theatre can be readily and economically fabricated and easily set up by a child as well as reassembled for storage. Further, operation of the theatre is simple requiring minimal attention on the part of the child and at the same time allowing the child to participate in the presentation to the extent that he or she desires. Additionally, the theatre is designed to be folded or collapsed for easy transport and storage while not in use.

Having described several embodiments of a new and improved children's marionette theatre constructed in accordance with the invention, it is believed obvious that other modifications and variations of the invention will be suggested to those skilled in the art in light of the above teachings. It is therefore, to be understood that changes may be made in the particular embodiments of the invention described which are within the full intended scope of the invention as defined by the appended claims.

What is claimed:

1. A children's marionette theater for self-propelled puppet-like figures comprising a housing defining a stage on which puppet-like figures are displayed and an upper ceiling member disposed over the stage, said upper ceiling member having path-like openings formed therein through which supporting guys for the puppet-like figures extend, and at least one self-propelled puppet transport vehicle supported on said ceiling member and having puppet-like figures secured thereto by guys through said openings to the puppet-like figures displayed on the stage.

2. A children's marionette theater according to claim 1 wherein the housing is formed from collapsible sides, back and ceiling members which may be collapsed into a relatively flat compact structure for ease of transport and storage.

3. A children's marionette theater according to claim 1 wherein the puppet-like figures secured by the supporting guys are two-dimensional figures formed from paper board, plastic and the like.

4. A children's marionette theater according to claim 1 wherein the puppet-like figures secured to the supporting guys are three-dimensional figures formed from plastic and the like.

5. A children's marionette theater according to claim 1 wherein the openings formed in the ceiling member comprise a maze of predetermined configuration defining a pattern of movement desired for the puppet-like figures being displayed on the stage.

6. A children's marionette theater according to claim 1 wherein the openings formed in the upper ceiling member include a plurality of separate tracks for a plurality of different self-propelled puppet transport vehicles whereby multiple puppet-like figures may be displayed simultaneously and moved across the stage in accordance with a plurality of respective predetermined movement patterns.

7. A children's marionette theater according to claim 1 wherein the self-propelled puppet transport vehicle comprises a mechanically wound spring actuated toy tractor having a projection formed on its under carriage which extends through the openings in the upper ceiling member and to which the supporting guys for the puppet-like figures are secured.

8. A children's marionette theater according to claim 1 wherein the openings in the upper ceiling member are open ended and form elongated tracks extending from one open ended point at an edge of the ceiling member over a predetermined path and terminate at a second different open ended point on an edge of the ceiling member whereby the self-propelled puppet transport vehicles readily may be loaded and unloaded on the vehicle supporting surface of the ceiling member along an open accessible edge thereof.

9. A children's marionette theater according to claim 8 wherein the openings formed in the ceiling member comprise a maze of predetermined configuration defining a pattern of movement desired for the puppet-like figures being displayed on the stage.

10. A children's marionette theater according to claim 8 wherein the openings formed in the upper ceiling member include a plurality of separate tracks for supporting a plurality of different self-propelled puppet transport vehicles whereby multiple puppet-like figures may be displayed simultaneously and moved across the stage in accordance with a plurality of respective predetermined movement patterns.

11. A children's marionette theater according to claim 1 further including means for imparting movement to arms, legs, and other members of the puppet-like figures in addition to the movement thereof by the self-propelled puppet transport vehicles.

12. A children's marionette theater according to claim 1 wherein the housing is formed from collapsible sides, back and ceiling members which may be collapsed into a relatively flat compact structure for ease of transport and storage, and wherein the openings in the upper ceiling member are open ended and form elongated tracks extending from one point at an edge of the ceiling member over a predetermined path and terminate at a second open ended point on an edge of the ceiling member whereby the self-propelled puppet transport vehicles readily may be loaded and unloaded on the top surface of the ceiling member along an edge thereof.

13. A children's marionette theater according to claim 12 further including means for imparting movement to arms, legs, and other members of the puppet-like figures in addition to the movement thereof by the self-propelled puppet transport vehicles.

14. A children's marionette theater according to claim 13 wherein the openings formed in the ceiling member comprise a maze of predetermined configuration.
tion defining a pattern of movement desired for the puppet-like figures being displayed on the stage.

15. A childrens marionette theater according to claim 14 wherein the self-propelled puppet transport vehicle comprises a mechanically wound spring actuated toy tractor having a projection formed on its under carriage which extends through the openings in the upper ceiling member and to which the supporting guys for the puppet-like figures are secured.

16. A childrens marionette theater according to claim 15 wherein the puppet-like figures secured by the supporting guys are two-dimensional figures formed from paper board, plastic and the like.

17. A childrens marionette theater according to claim 15 wherein the puppet-like figures secured to the supporting guys are three-dimensional figures formed from plastic and the like.

18. A childrens marionette theater for self-propelled puppet-like figures comprising a housing defining a stage area on which puppet-like figures are displaced and an upper ceiling member disposed over the stage area, said upper ceiling member having path-like openings formed therein through which supporting guys for the puppet-like figures may extend and defining at least one open pathway for allowing self-propelled puppet transport vehicles to travel along the upper surface of the ceiling member and support puppet-like figures secured thereto by guys extending through said open pathway while providing movement to the puppet-like figures which are displayed on the stage.

19. A childrens marionette theater according to claim 18 wherein the housing is formed from collapsible sides, back and ceiling members which may be collapsed into a relatively flat compact structure for ease of transport and storage, the openings in the upper ceiling member are open ended and form elongated tracks extending from one point at an edge of the ceiling member over a predetermined path and terminate at a second open ended point on an edge of the ceiling member whereby self-propelled puppet transport vehicles readily may be loaded or unloaded on the top surface of the ceiling member along an edge thereof.

20. A childrens marionette theater according to claim 19 wherein the openings formed in the ceiling member comprise a maze of predetermined configuration defining a pattern of movement desired for the puppet-like figures to be displayed on the stage.

21. A childrens marionette theater according to claim 20 wherein the openings formed in the upper ceiling member include a plurality of separate tracks for supporting a plurality of different self-propelled vehicles whereby multiple puppet-like figures may be displayed simultaneously and moved across the stage in accordance with a plurality of respective predetermined movement patterns.

22. A self-propelled puppet transport vehicle designed to transport puppet-like figures across the stage of a childrens marionette theater comprising a self-propelled toy tractor having a projection formed on its under carriage and of sufficient length to extend through track like openings formed in the ceiling member of a childs marionette theatre and to which guy wires for supporting puppet-like figures displayed on the stage of the theater are secured, said projection also serving at least in part to guide the toy tractor and cause it to travel along a predetermined pathway defining a pattern of movements for the puppet-like figure secured to it.

23. A childrens marionette theater according to claim 22 further including means for imparting movement to arms, legs, and other members of the puppet-like figures in addition to the movement thereof by the self-propelled puppet transport vehicle.

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