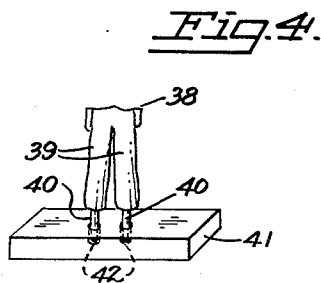
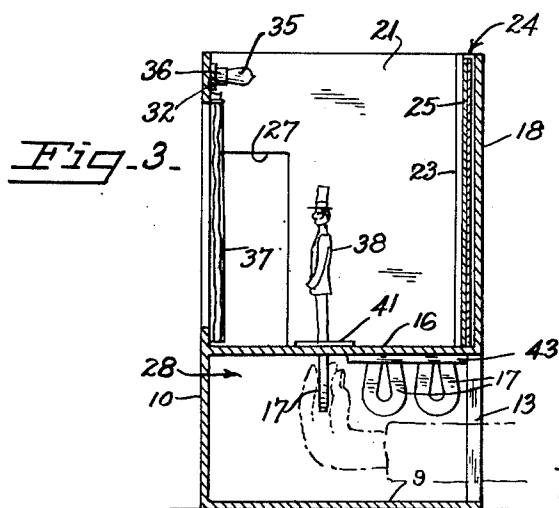
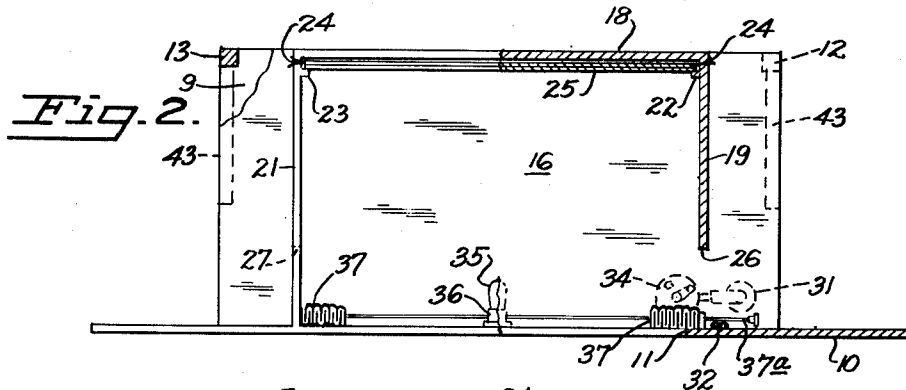
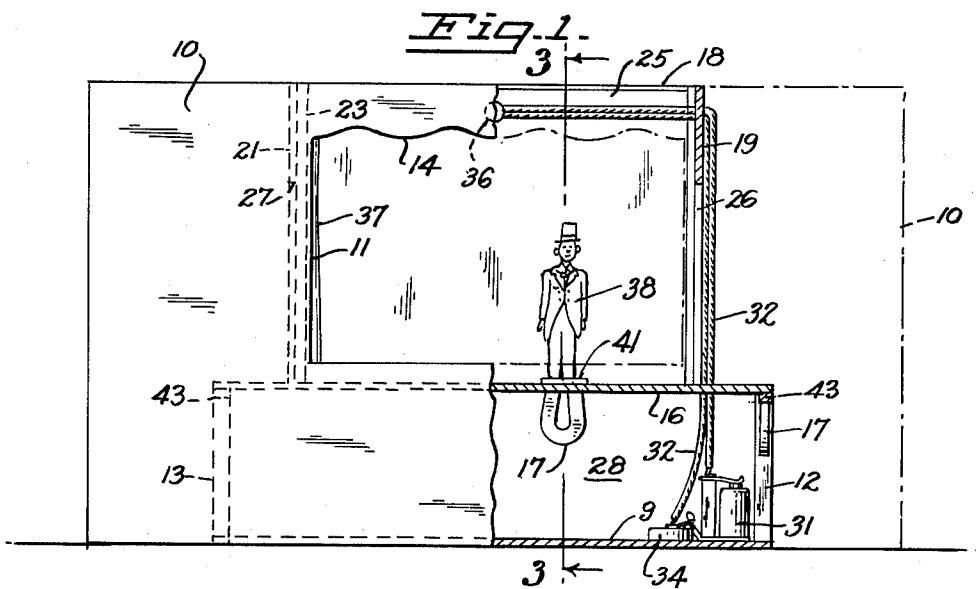


May 5, 1953

H. C. DORAN ET AL
DOLL STAGE CONSTRUCTION

2,637,138

Filed Feb. 20, 1951



INVENTORS
HAROLD C. DORAN
E. PATRICIA DORAN
Townsend and Townsend
ATTORNEYS

UNITED STATES PATENT OFFICE

2,637,138

DOLL STAGE CONSTRUCTION

Harold C. Doran and Elizabeth Patricia Doran,
Oakland, Calif.

Application February 20, 1951, Serial No. 211,894

2 Claims. (Cl. 46-13)

1

This invention relates to a new and improved doll stage construction and to a magnetically movable doll adapted for use in connection with said stage.

The particular embodiment of the stage construction illustrated in the drawings and to be described hereinafter in greater detail, comprises, generally, a frame, including a face-piece or front member through which said frame supports a stage platform. The platform is preferably formed of an integral piece of relatively strong, thin, non-magnetic, sheet material through which relatively weak magnetic forces, such as may be produced by conventional permanent horseshoe or bar magnets, may readily penetrate. An operating recess sufficiently large to permit free movement of the hand and forearm of an operator is provided directly below the stage platform. One or more operators located to either side or to the rear of the stage may, by manually manipulating relatively small permanent magnets along the undersurface of the stage platform, cause magnetically attractable dolls or puppets to move on and off stage and to any desired location on said stage platform.

A principal object of the present invention, therefore, is to provide a doll stage of novel construction which provides an extremely satisfactory means for utilizing magnetically movable dolls or puppets in the production of puppet shows or like displays.

Another principal object of the present invention is to provide a novel magnetically movable doll or puppet particularly adapted for use in connection with the said stage construction.

Other objects of the present invention will become apparent upon reading the following specification and referring to the accompanying drawings in which similar characters of reference represent corresponding parts in each of the several views.

In the drawings:

Fig. 1 is a front view in elevation of the stage construction showing portions broken away in section.

Fig. 2 is a top plan view of the stage construction.

Fig. 3 is a side elevational view of the stage construction.

Fig. 4 is a fragmentary view in perspective of a preferred embodiment of a magnetically movable doll.

Referring now more particularly to the drawings, the frame of the present doll stage construction may be considered as comprising a base

2

piece 9, a facing or front piece 10 having a stage or curtain opening 11 formed therein, and a pair of platform supporting corner posts indicated at 12 and 13, respectively. The front piece 10 may consist of an integral panel of plastic, plywood or other suitable sheet material, and stage opening 11 may be scalloped, as indicated at 14, or otherwise suitably ornamented to make the construction more attractive and more realistic in appearance.

The frame, comprising the aforementioned elements 9, 10, 12, and 13, supports stage platform 16. Preferably, platform 16 is formed of a relatively thin, strong non-magnetic sheet material, such as hard sheet plastic, through which relatively weak magnetic forces, such as produced by conventional permanent horseshoe or bar magnets may readily penetrate.

Platform 16 supports vertical back panel member 18 and oppositely disposed side walls 19 and 21, respectively. A pair of oppositely disposed vertical flanges, such as indicated at 22 and 23, provided on side walls 19 and 21, respectively, cooperate with back panel member 18 to define a slot or slideway, designated generally at 24, into which may be removably slidably positioned one or more scenery cards, such as indicated at 25. More particularly, each scenery card may comprise a sheet of cardboard or like material on which may be illustrated various scenes or backgrounds which are appropriately related to the play or action taking place on the stage. Scenery cards 25 may be readily shifted or positioned with respect to slot 24 as the play progresses, much in the same manner as conventional scenery is shifted or changed in actual theatre practice.

The area of platform 16 confined within the limits of back wall 18, and side walls 19 and 21, may be considered as the "on-stage" area—i. e., the area of the platform visible to the audience through stage opening 11—and the portions of the platform which extend laterally beyond the side walls may be considered as comprising the "off-stage" or wing areas of the platform. In this connection, it is noted that wing openings, such as indicated at 26 and 27, respectively, are formed in the side walls 19 and 21 to permit passage of dolls or puppets between the off-stage and on-stage areas of the platform.

The space beneath raised platform 16 may conveniently be termed the "operating recess," and is indicated generally at 28. In the embodiment of the stage construction illustrated in the drawings, recess 28 is defined by the underside of platform 16, face piece 10, base piece 9, and corner

3

posts 12 and 13. As will more fully appear hereinafter, recess 28 should be large enough and of sufficient depth to permit free movement of the hands and forearms of one or more operators. Preferably, the recess is open at its sides and back, thereby making it possible for an operator to gain access to the recess and operate the puppets from either side or to the rear of the device. In this connection, Fig. 3 illustrates, in broken lines, how the hand and forearm of an operator may be extended into recess 28 in order to manipulate an operating magnet, as indicated at 17.

In order to make the construction more effective and realistic in appearance and operation, one or more stage lights may be provided to illuminate the stage. More specifically, a conventional flashlight battery 31 may be connected by wiring 32, via switch 34, to an overhead stage light, which, in turn, may comprise a conventional flashlight bulb 35 disposed within socket 36. Suitable miniature draw curtains 37 having conventional draw strings 37a are also preferably provided for stage opening 41.

In Fig. 4 there is illustrated fragmentarily a preferred doll construction, comprising a doll body 38 having legs 39, and a supporting base piece 41. The doll proper is preferably made of a relatively light-weight, durable, plastic material, and the legs 39 of the doll terminate in a pair of similarly formed depending pegs or lugs 40.

Base piece 41 comprises a block or section of magnetic material and may consist of a permanently magnetized bar-magnet, or may consist of a block of iron or steel alloy, in which a magnetic field may be readily induced. The base piece 41 is formed with wells or recesses 42 spaced and proportioned to removably receive peg members 39 of the doll and thereby provide a means for supporting said doll in upright position. It is desirable to have the base piece readily separable from the doll so as to facilitate dressing or undressing of the doll as costuming needs may require.

Small strips of magnetic metal, such as indicated at 43, may be secured to the underside of platform 16 beneath the platform wings in order to provide readily available places for temporarily positioning operating magnets 17 when the latter are not in use.

In short, the operating magnets, when not in use, may be moved against either of the metal strips 43 to which said magnets will cling in readily available locations.

From the foregoing, it will be readily seen how an operator, by moving one of the operating magnets 17 along the undersurface of the platform 16, can cause an associated doll or puppet to move correspondingly over the top surface of the platform. The magnetic field produced by an operating magnet will penetrate the relatively thin, non-magnetic platform material and induce a field within base piece 41 of the doll causing magnetic attraction between said base piece and said operating magnet. The present stage construction makes possible simultaneous participation of more than one operator. We have found, for example, that two operators, located to either side, or to one side and to the rear of the device, can each effectively operate simultaneously one, or even two, of the puppets without interfering with one another's activities.

It is, of course, of practical importance that the stage platform be supported in such manner that substantially the entire underside thereof

4

remains smooth and free of obstructions, whereby unobstructed slidable movement of the operating magnets against the undersurface of said platform and throughout substantially the entire platform area, may be had. In this connection, it is pointed out that platform 16 of the embodiment herein disclosed is supported only along its front marginal edge by face piece 10, and adjacent its two back corner edges by posts 12 and 13, thereby leaving the entire remaining under-area of the platform unobstructed.

Although the present invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, it is understood that certain changes and modifications may be made within the spirit of the invention and scope of the appended claims.

We claim:

1. A doll stage construction for use with magnetically actuated dolls comprising; a frame including a front facing having a stage opening formed therein, a stage platform beneath said platform and supported by said frame adapted to support slidably magnetically movable dolls, said platform being formed of a relatively strong, thin, non-magnetic sheet material penetrable by relatively weak magnetic forces, the underside of said frame being supported adjacent only marginal portions of said platform whereby an operating magnet may be moved unobstructedly slidably along substantially the entire undersurface of said platform, a vertical back member and oppositely disposed vertical side members extending upwardly beyond the plane of said platform and spaced rearwardly from said stage opening defining the on-stage area of said platform, marginal portions of said platform extending laterally outwardly beyond the respective vertical planes of said side member defining off-stage platform wings, wing openings formed in said side members establishing doll passages between said wings and the on-stage area of said platform, an operating recess beneath said platform large enough to accommodate and permit movement of the hand and forearm of an operator beneath said stage platform, and an opening formed in said frame rearwardly of said front facing communicating with said operating recess, said opening being large enough to permit manual access into said operating recess.

2. A doll stage construction for use with magnetically actuated dolls comprising; a stage platform formed of a relatively strong, non-magnetic, thin, sheet material penetrable by relatively weak magnetic forces; a front facing having a stage opening formed therein projecting upwardly from said stage platform adjacent the front marginal edge of said platform; a vertical back member projecting upwardly from said stage platform opposite said stage opening and adjacent the rear marginal edge of said stage platform simulating a stage backdrop; a pair of oppositely disposed vertical side members located a substantial distance inwardly from the side marginal edges of said stage platform; the area of said stage platform lying within the confines of said facing, back member, and side members defining and simulating the on-stage area of said doll stage; the areas of said stage platform disposed outwardly laterally beyond the plane of said vertical side members defining and simulating off-stage wing stage areas of said doll stage; wing openings formed in said side members establishing doll passages between said off-stage wing areas and the on-stage area of said plat-

5

form; means comprising platform supporting frame members depending below said platform defining an operating recess beneath said platform large enough to accommodate and permit movement of the hand and forearm of an operator beneath said stage platform; said last named means supporting said stage platform to provide unobstructed sliding movement of an operating magnet against the underside of said stage platform throughout substantially the entire on-stage and off-stage areas and through the wing openings connecting said off-stage and on-stage areas of said platform.

HAROLD C. DORAN.
E. PATRICIA DORAN. 15

6

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
961,675	Bevans -----	June 14, 1910
1,523,282	Powers -----	Jan. 13, 1925
1,619,719	Goldman -----	Mar. 1, 1927
1,874,819	Simmons -----	Aug. 30, 1932
2,086,728	Morrow -----	July 13, 1937
2,101,764	Swart -----	Dec. 7, 1937
2,249,454	Brake -----	July 15, 1941
2,399,041	Kleber -----	Apr. 23, 1946
2,427,442	Campbell -----	Sept. 16, 1947
2,525,738	Tormey -----	Oct. 10, 1950