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STAGE FOR PUPPETS

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2 Sheets-Sheet 1

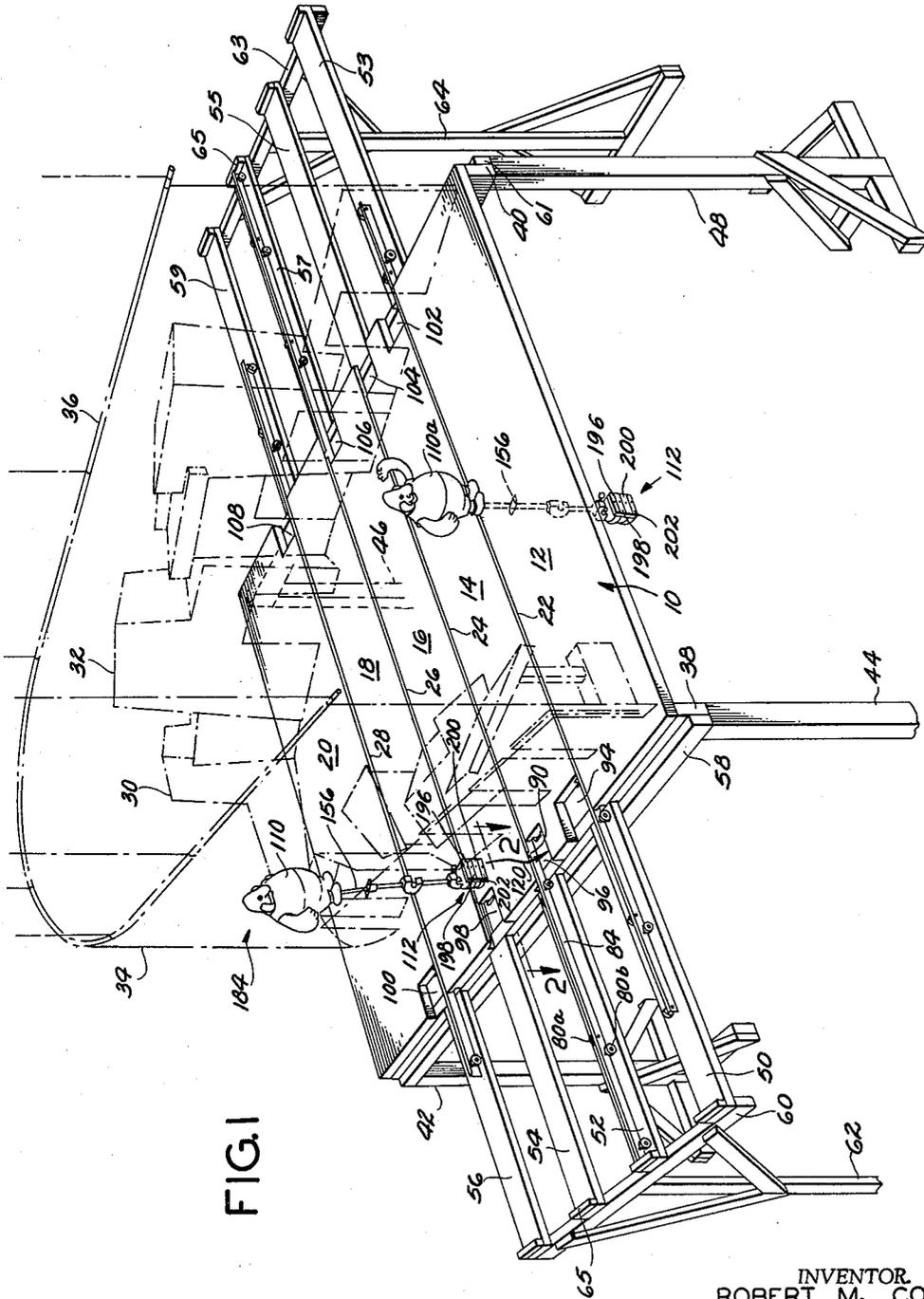


FIG. 1

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**STAGE FOR PUPPETS**

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13 Claims. (Cl. 46-13)

This invention relates to miniature theatrical stages and more particularly to a miniature stage adapted to the performance thereon of mechanical puppets which are controlled from a concealed position below the stage.

The apparatus of this invention is especially adapted to be used in conjunction with mechanical puppets of the kind described in the applicant's copending application Serial No. 38,391 filed June 23, 1960.

Heretofore, miniature stages for puppets or marionettes of the kind controlled from beneath the stage floor have taken several different forms which lack the desired contribution thereof to the facility of movement and control of the puppets and also lack realism as to the continuity of the stage floor and the positioning of the puppet thereon. For example, in one form of such stage, the stage floor is wholly omitted to afford freedom of movement of the puppets which are movably supported upon means located below the normal stage floor level. Thus, the latter arrangement, in addition to lacking the realism afforded by actual support and movement of the puppets upon a stage floor, also requires the audience to view the theater from a position considerably below the stage floor level in order to hide the absence of the stage floor and place the puppet support and control means out of view.

In another form of such stage, a stage floor is in effect provided, but it is formed with relatively large open spaces or slots through which the controlling and supporting means for the puppets extend and which are visible to the audience unless, as in the first example, the audience is seated well below the normal stage floor level. Here again, the illusion of realism of movement of the puppets upon the stage floor is lacking. In still other instances, where the stage floor slots are made sufficiently narrow to give the appearance of continuity to the stage, then there has heretofore been no convenient or quick way to provide entrance to or exit from the stage for the puppets, while a performance is in progress.

It is, therefore, an object of this invention to provide miniature stage construction improvements which overcome the before mentioned deficiencies and disadvantages.

It is another object of this invention to provide a miniature stage having a stage floor which maintains the appearance of substantial continuity at all times, while yet permitting free lateral movement of the puppet-control means extending therefrom through the floor.

It is a further object of this invention to furnish a miniature stage affording improved facility of movement and support of the puppets thereon.

It is a still further object of this invention to provide a miniature stage of such construction as to afford continuous movable support of the puppets on the surface thereof, whereby such movement of the puppet relative to the stage surface provides a portion of the controlled motion of a part of the puppet.

It is still another object of this invention to provide a miniature stage construction combining the desirable effects of a substantially continuous stage floor, puppets controlled through means extending through the floor and at the same time permitting the entrance and exit of puppets to and from the stage scene without manipulations which are visible to the audience.

The objects of this invention are accomplished, in general, by providing a stage construction which may have the usual wings, back drops, and curtains, but which has a

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stage floor constructed with one or more relatively narrow slots extending along or across it, and which slot or slots are closed by elongated slide members which are slidable lengthwise therein. Each such slide member is formed with a generally vertically extending notch in one side or edge thereof to receive and through which may extend a control column of a puppet to be positioned in supporting contact upon the upper surface of the stage floor. By moving the puppet control column longitudinally of the slot, motion of the puppet upon the stage floor longitudinally of the slot is effected, while at all such times maintaining the stage floor slot closed by the slide member which follows the movement of the control column. Another feature of the objects of this invention is accomplished by providing an opening or openings at the sides of the stage behind the stage wings into which the ends of the stage floor extend, thereby permitting the puppet assemblies to be introduced or withdrawn through such openings in the stage floor, and the control column thereof positioned in engagement with or disengaged from the aforementioned notch in the slide members, whereby the puppet can be moved together with the slide member along the slot onto or off the stage.

These and other objects, advantages, and features of novelty of the invention will be evident hereinafter.

In the drawings in which a preferred embodiment and mode of operation of the invention is illustrated and in which like reference characters designate the same or similar parts throughout the several views:

FIGURE 1 is a perspective view of the general construction of the miniature stage and showing the manner of positioning of a puppet for performance upon the stage.

FIGURE 2 is a fragmentary plan view of a position of the stage floor, generally indicated at line 2-2 in FIGURE 1, showing in slightly enlarged detail the stage floor, slot, and slide member construction.

FIGURE 3 is an enlarged cross sectional detail view taken on line 3-3 of FIGURE 2.

FIGURE 4 is an enlarged cross sectional view taken on line 4-4 of FIGURE 2.

*Apparatus*

Referring now primarily to FIGURE 1, 10 is a stage floor comprising a plurality of parallel stage boards positioned from front to rear of the stage respectively, at 12, 14, 16, 18, and 20, each of such boards being separated at adjacent edges by relatively narrow slots 22, 24, 26, and 28, extending across the stage floor from side to side thereof. While, for convenience of illustration, five floor boards with four intermediate slots are shown in the drawing, any other desired number thereof may be employed.

Wing structures or scenery, generally indicated in broken lines, for example at 30 and 32, may be provided as desired on or along the sides of the stage and also a side and back drop curtain, as shown in broken lines at 34, supported from a curved or other suitably shaped rod, as shown at 36, may be employed.

The before mentioned stage floor boards 12, 14, 16, 18, and 20 are supported by attachment at their opposite ends to the upper surface of a pair of side cross beams 38 and 40, which cross beams are, in turn, supported at their ends upon four vertical columns 42, 44, 46, and 48. The columns may be of any desired length, but preferably are such as to elevate the stage floor sufficiently above the ground or other base surface to provide adequate room under the stage for the puppeteers and for convenient manipulation of the puppet controls.

Extending laterally from each side of the stage 10 and positioned along an outer extension of each of the

aforementioned slots 22, 24, 26, and 28 are a plurality of elongated supporting platforms, the supporting platforms on the left hand side of the stage being shown at 50, 52, 54, and 56, and the supporting platform on the right hand side of the stage being shown at 53, 55, 57, and 59. These platforms serve as supporting means or runways for the outwardly extending opposite end portions of slide members slidably carried in the before mentioned slots, as will be hereinafter more fully described. Each inner end of each of the supporting platforms 50, 52, 54, and 56 on the one side, and 53, 55, 57, and 59 on the other side, rests upon and is secured, as best shown in FIGURE 4, by suitable means, such as screws 61, to the upper surfaces of cleat cross members 58 and 61, such cleat members being fastened by suitable means, such as nails 63, to the outer sides of the stage floor side cross beams 38 and 40, respectively. The outer ends of each of the supporting platforms 50, 52, 54, and 56, and 53, 55, 57, and 59 are supported upon outboard auxiliary cross beams 60 and 63, respectively, which are, in turn, supported at their center portions upon vertical columns 62 and 64. The outer ends of each of the supporting platforms has attached thereto an upwardly projecting stop block, as shown at 65, to limit the endwise travel of the slide members in either direction within their respective slots such that upon extreme outward travel of the slide members the notches 90 are stopped within and prevented from being carried outwardly beyond their respective access openings.

Referring now primarily to FIGURES 2 and 3, the adjacent edges of each of the parallel stage floor boards 12, 14, 16, 18, and 20 are spaced apart to from the slots 22, 24, 26, and 28, as before mentioned. Slots 24 shown in cross section in FIGURE 3 and which is typical of all the slots, is formed with confronting, vertical, slot-facing edge surfaces 64a and 64b extending downward from the top surface of the floor boards 16 and 14 a fraction of the thickness of the boards, opposite beveled portions 66a and 66b sloping downwardly and away from the lower edges of the edge surfaces of the slot, horizontal undercut portions 68a and 68b extending laterally away from the lower edges of the beveled portions, and vertical end portions 70a and 70b extending downwardly from the outermost edges of the beveled portions to the lower surfaces 72a and 72b of the stage boards 16 and 14. Undercut recesses 73a and 73b are thus provided along the lengths of the edges of the stage boards on opposite sides of and parallel with each of the slots. Attached by suitable means, such as screws 71, to the marginal surfaces 74a and 74b along the length of the lower surfaces 72a and 72b of the stage boards 16 and 14, respectively, and extending inwardly toward one another under the aforesaid recesses 73a and 73b are elongated metal strips or flanges 76a and 76b having upwardly facing exposed surfaces 78a and 78b, respectively, opposite the downwardly facing undercut surfaces 68a and 68b. A pair of parallel, confrontingly facing, channel shaped guide tracks are thus formed in which are retained and rollingly supported a plurality of small rubber tired wheels, as shown at 80a and 80b.

Referring against primarily to FIGURE 3 and also to FIGURES 2 and 4, positioned slidably in slot 24, and similarly in all of the other slots of the stage, is an elongated slide member 84 which may be constructed in any suitable manner, but preferably as herein illustrated takes the form of an elongated metal angle having a horizontal leg 85 substantially filling the width of the slot 24 with its top surface flush with the top surfaces of the stage boards, and a downwardly extending leg 86. Each of the before mentioned rubber tired wheels 80a and 80b are rotatably carried upon horizontal axles, as shown at 82a and 82b which axles are, in turn, attached at their inner ends through suitable holes and by nuts, as shown at 93, to the downwardly extending leg 86 of the slide member angle 84. The slide member 84 is thus

guidedly supported on a plurality of wheels, as shown at 80a and 80b, with freedom for longitudinal travel within limits in slot 24. Screwed to the lower surface at a plurality of locations along the length of the horizontal leg 85 of the angle 84 are filler blocks 83 which serve as guide means to maintain the angle 84 center in the slot 24 and prevent the horizontal leg 85, by inadvertent misadjustment, from becoming displaced sideways relative to the slot into a position overlapping an edge of the top surface of the floor boards.

A rounded side notch 90 is formed in the horizontal leg 85 and a relatively larger V-shaped notch 91 formed in the vertical leg 86 of the slide member 84 intermediate its opposite ends, the notch 90 being sufficiently deep and of such size and shape as to receive the vertical control column 156 of a puppet to be positioned on the stage, as hereinafter described. Notch 91 is of such size and shape as to provide clearance for the control column so that while located in notch 90 it can be tilted to different angles, as desired, for example as shown in dotted lines at 156 in FIGURE 3. A reinforcing clip 125 is fastened to the outer face of the vertical leg 86 of the slide angle 84 bridging the notches 90 and 91, by means of two pairs of bolts 126 and 127. Tubular spacers on the bolts 126 and 127 serve to space the clip 125 from the face of leg 86 of angle 84 to afford sufficient clearance to permit tilting of a control column positioned in notch 90, as illustrated at 156 in FIGURE 3.

Portions of the ends of certain of the stage floor boards are cut away to form rectangular access openings through the stage floor inside of the side cross beams 38 and 40, as shown at 94, 96, 98, and 100, along the left hand side of the stage and, as shown at 102, 104, 106, and 108, along the right hand side of the stage. The ends of the before described slots 22, 24, 26, and 28 open into communication or in effect intersect the access openings 94, 96, 98, and 100, respectively, on the left hand side of the stage floor and openings 102, 104, 106, and 108, respectively, on the right hand side of the stage floor. Each of such access openings is of such size and shape as to permit a puppet figure, which is to be positioned on the stage, to be inserted therethrough either from below the stage floor or to permit the control mechanism of such puppet figure to be inserted therethrough from above the stage floor level, whereby the control column extending between such puppet figure and the control mechanism can be positioned in the notch 90 of the slide member 84 and moved therewith along the slot, and whereby the puppet figure may be caused to enter and move onto the stage, as hereinafter more fully described.

#### Operation

In operation of the apparatus of this invention, it is assumed, for convenience of description, that the mechanical puppet and control mechanism assembly to be employed therewith is of the kind described in the aforementioned copending application Serial No. 38,391. Such puppet assembly, shown generally at 184 in FIGURE 1, in readiness to be placed in operating position relative to the stage, comprises the puppet figure 110, control mechanism shown generally at 112 including control levers 196, 198, 200, and 202, and tubular control column 156 interconnecting the puppet figure and the control mechanism, all as fully described together with similar reference numerals in the aforementioned copending application.

In placing the puppet assembly in operating position relative to the stage, the control mechanism 184 of the assembly is preferably first inserted downwardly through a selected one of the several access openings, 94 to 108 inclusive, to a position where the puppet figure 110 is located above the level of the floor boards, the control mechanism 184 is suspended below the floor boards, and the control column 156 extends therebetween through such access opening. The access opening chosen will

depend upon what part of the stage floor it is desired to place and move the puppet figure and from which side of the stage it is desired to have the puppet figure enter.

Assuming, for example, that the access opening 96 into which the left hand end of slot 24 extends, is thus chosen, then the control mechanism 184 is inserted down there-  
 through, as indicated by the arrow 120. The slide member 84 is then as beforehand moved to its extreme left hand position in slot 24, as shown in FIGURE 1, at which position the notch 90 in the mid-section of the slide member 84 is carried therewith into exposed position within the access opening 96. The puppet control column 156 is then positioned in engagement with the notch 90, and the entire puppet assembly turned so that the puppet is facing in a direction parallel to the direction in which the slot 24 runs, after which the control column, carrying the whole puppet assembly, may be moved laterally toward the right through the slot 24 with corresponding sliding movement of the slide member 84 along the slot 24. The puppet figure 110 may thus be moved onto and across the stage into any desired position, such as for example that illustrated at 110a, the latter position for convenience of illustration and for the purpose of showing the corresponding lateral displacement of the slide member, being shown in relation to slot 22 instead of slot 24. As the puppet is thus moved onto the stage and moved back and forth on the stage, the slide member freely follows the movements of the puppet. During such movement, and other manipulations of the puppet, the puppet assembly is preferably maintained in a lowered position in which the bottom surface of the puppet figure is substantially in contact with the upper surface of the stage floor adjacent the edges of slot 24 or such other slot as is chosen, and in the specific case of use of the puppet figure described in the aforesaid copending application, the puppet figure is positioned such that the transparent, plastic wheel carrying the reference numeral 42 in that application is maintained in rolling and supporting engagement with the top surface of the stage floor adjacent such slot. Thus, as the puppet is faced in the direction of its movement with the slide member as before mentioned, it will walk out onto the stage, across the stage, and off the stage in accordance with the puppeteer's control. Once, the puppet is positioned on the stage, such as illustrated at 110a in FIGURE 1, it can be rotated in any desired direction, tilted within limits in any desired direction, and any of the other desired manipulations of the puppet can be performed, as described in the before mentioned copending application Serial No. 38,391.

Advantages of the stage construction, including the particular stage floor slot and slide member arrangement of this invention, in addition to those hereinbefore mentioned, reside in the relatively free rotational and tilting movements which it makes possible to impart to the puppet control column and to the puppet, while at the same time providing support and relatively frictionless movement of the puppet upon the stage.

While the slots and stage boards are herein described and shown as running parallel with each other and crosswise of the stage, they can be similarly arranged in non-parallel configurations and running in any desired direction, as may be desired or required by the particular puppet performance.

It is to be understood that the foregoing is illustrative only and that the invention is not to be limited thereby, but shall include all modifications thereof within the scope of definition of the appended claims.

What is claimed is:

1. In a miniature stage for performance thereon of puppetry with a separate mechanical puppet assembly which includes a puppet figure for appearance upon the stage, a control member to be concealed from view below the stage, and a relatively slender control column interconnecting said puppet figure and said control member, apparatus comprising: a stage floor; an elongated, rel-

atively narrow slot extending along said floor and through said floor from the top surface to the under surface thereof; an elongated slide member substantially closing said slot and retained longitudinally slidable therein, said slide member being separate from said puppet assembly; a sidewardly opening notch formed in one edge of said slide member from top surface to bottom thereof, whereby the control column of such a puppet may be received and detachably retained in said notch, with freedom thereof for rotational movement about its axis and with limited freedom for angular movement in all directions transversely of its axis relative to said slide member, and be moved therewith along said slot while extending therethrough transversely of the said top surface of said floor.

2. In a miniature stage for performance thereon of puppetry with a separate mechanical puppet assembly which includes a puppet figure for appearance upon the stage, a control member to be concealed from view below the stage, and a relatively slender control column interconnecting said puppet figure and said control member, apparatus comprising: a stage floor; an elongated, relatively narrow slot extending along said floor and through said floor from the top surface to the upper surface thereof; an elongated slide member substantially closing said slot and retained longitudinally slidable therein with its top surface substantially flush with the top surface of said floor, said slide member being separate from said puppet assembly; a sidewardly opening notch formed across one edge of said slide member from top surface to bottom thereof, whereby the control column of such a puppet may be received and detachably retained in said notch with freedom for rotational movement about its axis and with limited freedom for angular movement in all directions transversely of its axis relative to said slide member and be moved therewith along said slot while extending therethrough transversely of said top surface of said floor.

3. In a miniature stage for performance thereon of puppetry with a separate mechanical puppet assembly which includes a puppet figure for appearance upon the stage, a control member to be concealed from view below the stage, and a relatively slender control column interconnecting said puppet figure and said control member, apparatus comprising: a stage floor; an elongated relatively narrow slot extending along said floor and through said floor from the top surface to the under surface thereof; an elongated slide member substantially closing said slot and retained longitudinally slidable therein; an opening through said floor intersected by said slot and of sufficient size to permit passage therethrough of either such puppet figure or such control member, said slide member being slidably positionable in said opening; a sidewardly opening notch formed across one edge of said slide member from top surface to bottom surface thereof, said notch being positionable in said opening, whereby the control column of such puppet may be received and detachably retained in said notch and moved therewith along said slot while extending therethrough transversely of said top surface of the floor.

4. In a miniature stage for performance thereon of puppetry with a separate mechanical puppet assembly which includes a puppet figure for appearance upon the stage, a control member to be concealed from view below the stage and a relatively slender control column interconnecting said puppet figure and said control member, apparatus comprising: a stage floor; an elongated, relatively narrow slot extending along said floor and through said floor from the top surface to the under surface thereof; an opening through said floor intersected by said slot and of sufficient size to permit passage therethrough of either said puppet figure or said control member, whereby the said puppet assembly may be initially positioned with said control column extending through



member below the floor; a track member fixed under said floor adjacent to and running parallel with said slot; rolling means positioned between the lower portion of said slide member and said track and movably supporting said slide member in said slot as aforesaid; a sidewardly opening notch formed in an edge of said slide member and extending transversely from top to under side thereof, said notch being positionable in said opening and in said slot by sliding movement of said slide member along said slot, whereby said control column thus introduced through said opening may be received in said notch and then while retained in said notch in said slide member may be moved therewith along said slot onto and across said stage floor, the side opening of said notch then being closed and the control column being retained therein by the adjacent edge of said slot during such sliding movement.

11. Apparatus in accordance with claim 10 and support means positioned adjacent the side of said stage floor for receiving and supporting an end portion of said slide member extending from said slot.

12. In a miniature stage for performance thereon of puppetry with a separate mechanical puppet assembly which includes a puppet figure for appearance upon the stage, a control member to be concealed from view below the stage, and a relatively slender control column interconnecting said puppet figure and said control member, apparatus comprising: a stage floor; a relatively narrow slot extending across said floor from side to side thereof and through said floor from the top surface to the undersurface thereof; a slide member slidable lengthwise of and substantially closing the width and entire length of said slot; a sidewardly opening recess formed in one edge of said slide member, said recess and side opening thereof extending between the top surface and the bottom surface of said slide member for detachably receiving therein the control column of such puppet assembly for movement with said slide member along said slot while extending therethrough transversely of the top

surface of said floor, the side opening of said recess being closed by the adjacent floor edge of said slot during such movement.

13. In a miniature stage for performance thereon of puppetry with a separate mechanical puppet assembly which includes a puppet figure for appearance upon the stage, a control member to be concealed from view below the stage, and a relatively slender control column interconnecting said puppet figure and said control member, apparatus comprising: a stage floor; a relatively narrow slot extending across said floor from side to side thereof and through said floor from the top surface to the undersurface thereof; a slide member slidable lengthwise of and substantially closing the width and entire length of said slot and with its top surface substantially flush with the top surface of said floor; and a sidewardly opening recess formed in one edge of said slide member, said recess and side opening thereof extending between the top surface and the bottom surface of said slide member for detachably receiving therein and removably retaining the control column of such puppet assembly for movement with said slide member along said slot while extending therethrough transversely of the top surface of said floor, the side opening of said recess being closed by the adjacent floor edge of said slot during such movement.

#### References Cited in the file of this patent

##### UNITED STATES PATENTS

696,835	McCormick	Apr. 1, 1902
1,053,817	Jackson	Feb. 18, 1913
1,384,963	La Batt	July 19, 1921
1,502,236	Dondo	July 22, 1924
1,788,671	Heideklang	Jan. 13, 1931
2,175,604	Holmes	Oct. 10, 1939
2,207,190	Caranahan	July 9, 1940
2,327,234	Wolff et al.	Aug. 17, 1943
2,716,840	Armstrong	Sept. 6, 1955

UNITED STATES PATENT OFFICE  
CERTIFICATE OF CORRECTION

Patent No. 3,124,896

March 17, 1964

Robert M. Cook

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 6, line 24, for "upper" read -- under --;  
column 7, line 2, for "member" read -- means --; line 16,  
for "long" read -- along --; line 70, for "pupet" read  
-- puppet --.

Signed and sealed this 21st day of July 1964.

(SEAL)

Attest:

ESTON G. JOHNSON  
Attesting Officer

EDWARD J. BRENNER  
Commissioner of Patents