

April 20, 1965

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3,178,852

MARIONETTE CONSTRUCTION AND CONTROL THEREFOR

Filed Feb. 12, 1962

4 Sheets-Sheet 1

FIG. 1

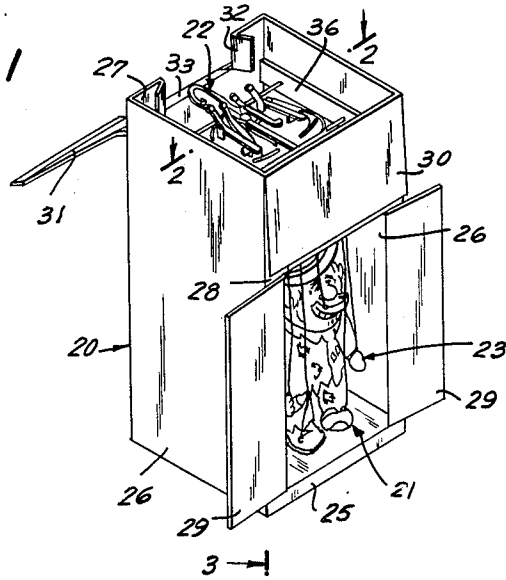
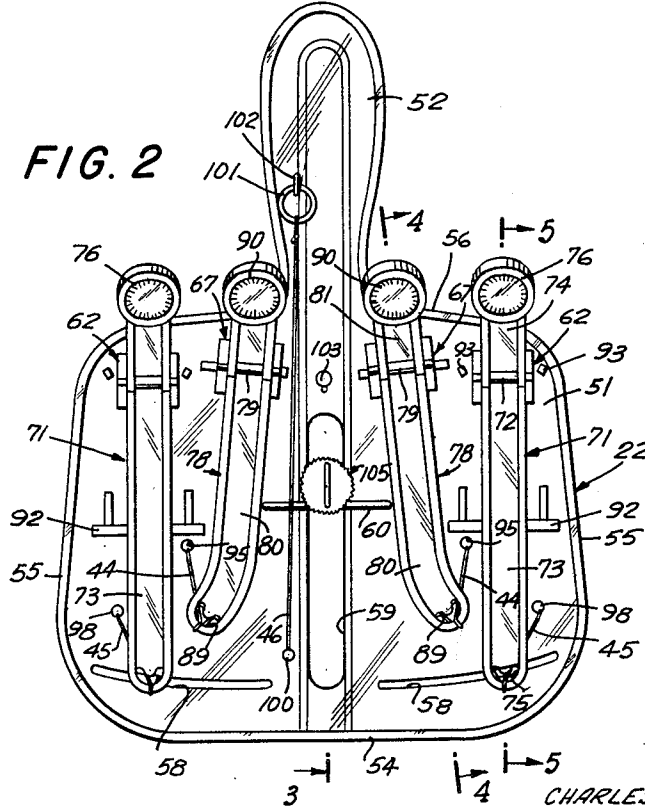


FIG. 2



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FIG. 3

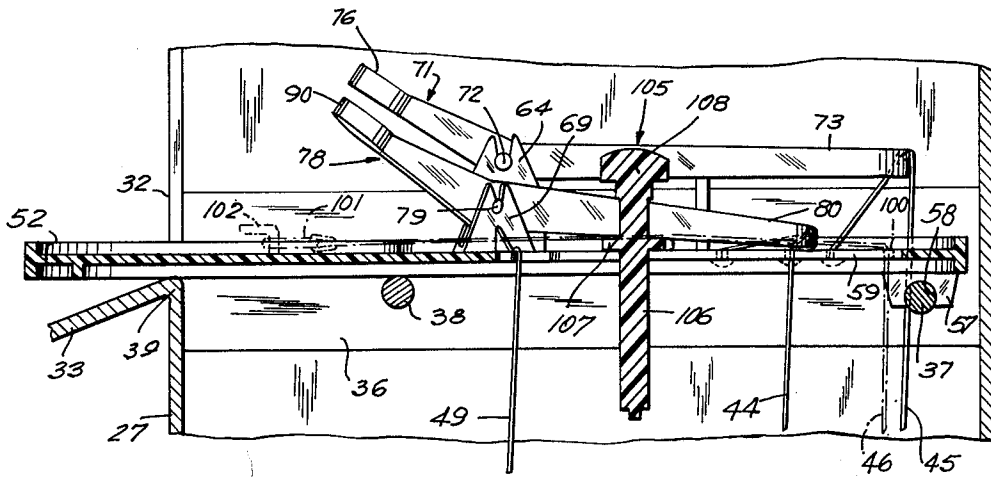


FIG. 4

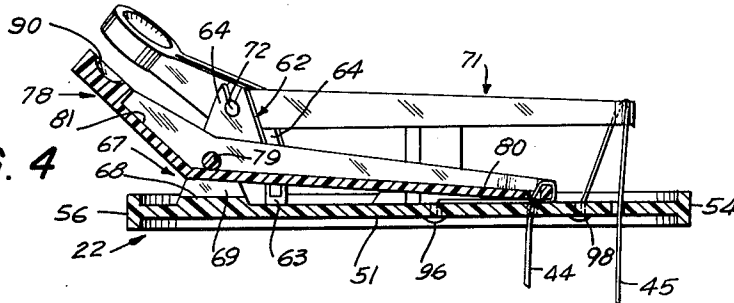
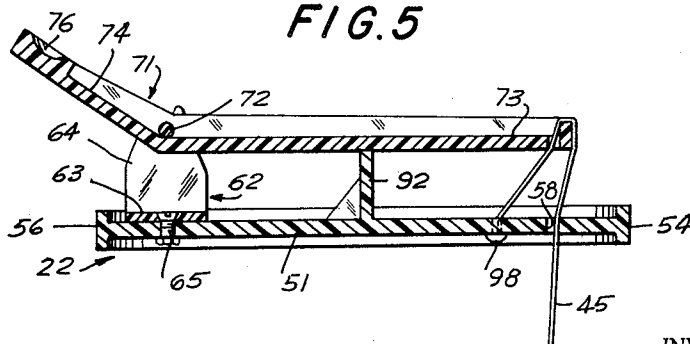


FIG. 5



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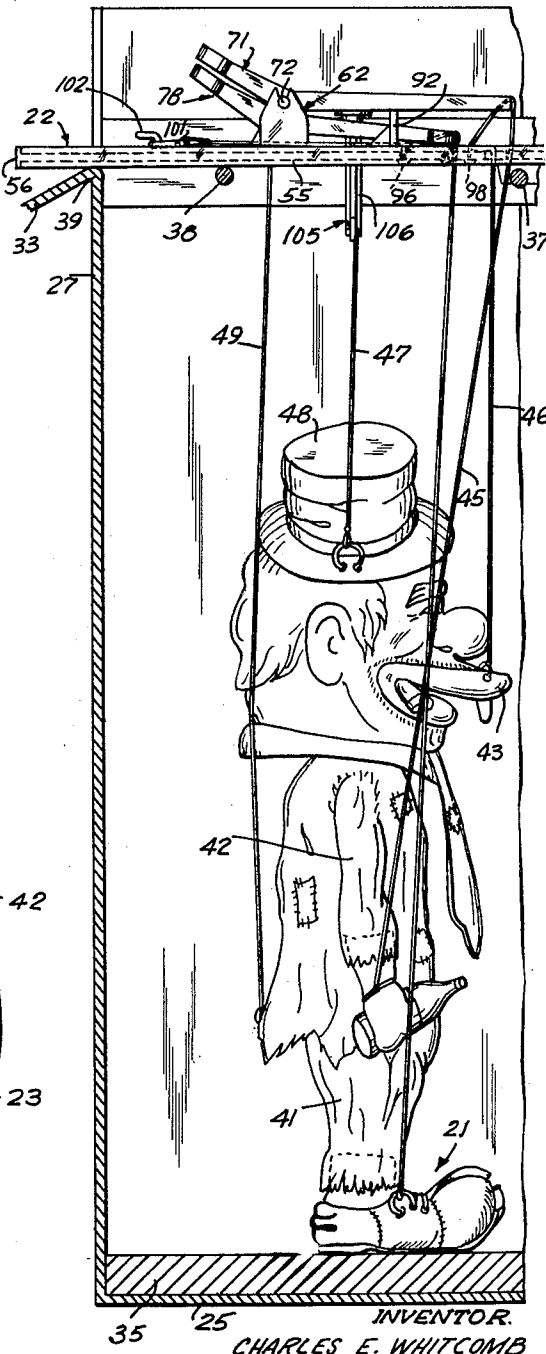
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FIG. 6



FIG. 7



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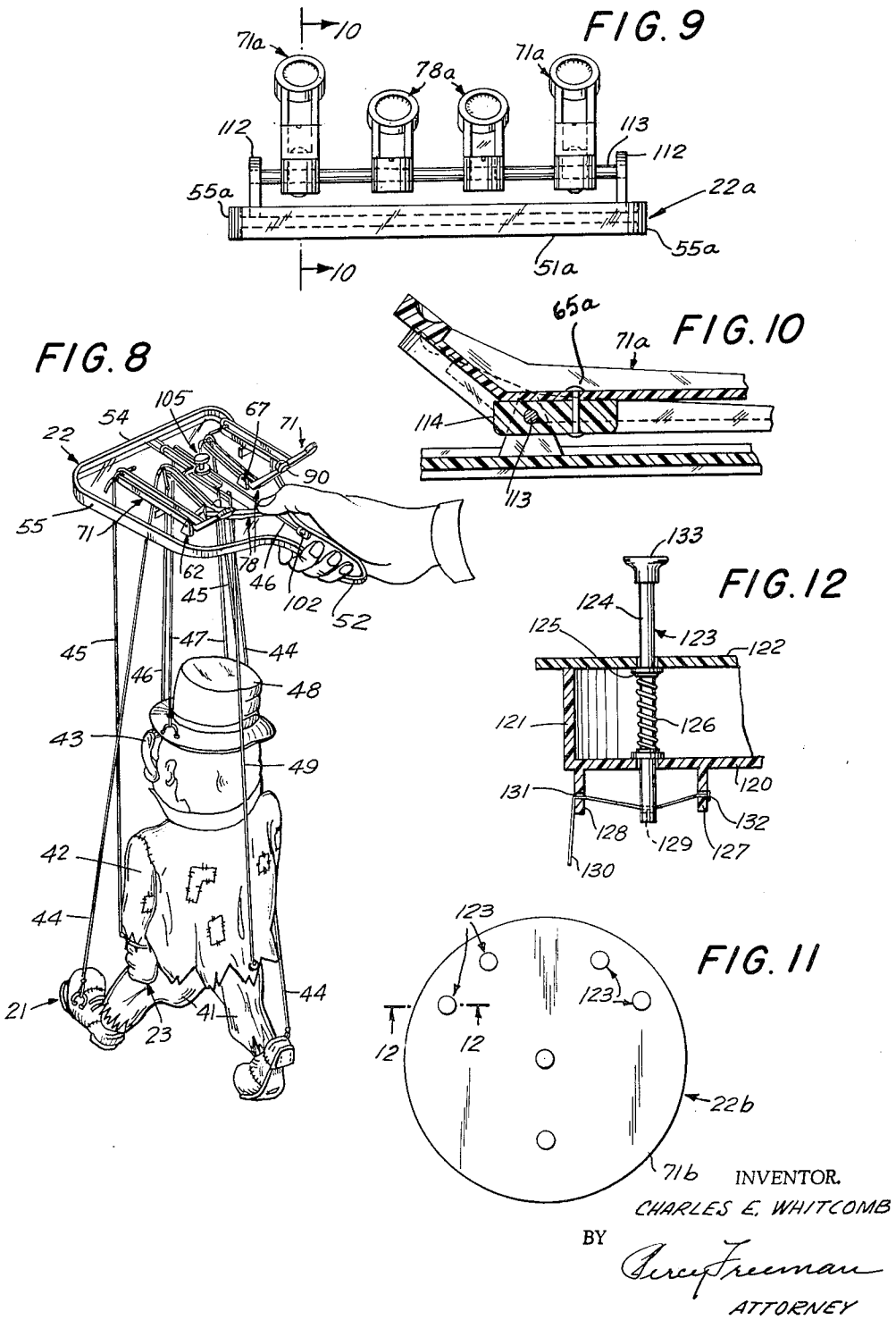
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3,178,852

MARIONETTE CONSTRUCTION AND CONTROL THEREFOR

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 7 Claims. (Cl. 46—126)

This invention relates generally to entertainment devices, and is especially concerned with a unique marionette construction.

It is an important object of the present invention to provide a marionette construction which is extremely simple to operate, and can be effectively used by even small children, without special skill or training.

The invention more particularly contemplates the provision of a marionette construction which is uniquely adapted for "push-button" operation, so as to substantially eliminate the high degree of skill and dexterity heretofore required, while obtaining substantially professional operating results.

Still another object of the present invention resides in the provision of unique means for obtaining both vertical and lateral movement of parts of a marionette character, as desired, while the possibility of entangled actuating lines or strings is obviated.

Still another object of the present invention resides in the provision of a marionette construction having the advantageous characteristics mentioned in the preceding paragraphs, which is extremely simple in structure, entirely reliable and durable throughout a long useful life, and which can be economically manufactured for sale at a reasonable price.

Other objects of the present invention will become apparent upon reading the following specification and referring to the accompanying drawings, which form a material part of this disclosure.

The invention accordingly consists in the features of construction, combinations of elements, and arrangements of parts, which will be exemplified in the construction hereinafter described, and of which the scope will be indicated by the appended claims.

In the drawings:

FIG. 1 is a top perspective view showing a marionette constructed in accordance with the teachings of the present invention, and illustrated in association with a display or stage structure.

FIG. 2 is a top plan view showing a marionette control mechanism constructed in accordance with the teachings of the present invention.

FIG. 3 is a sectional elevational view taken substantially along the line 3—3 of FIG. 2.

FIG. 4 is a sectional elevational view taken substantially along the line 4—4 of FIG. 2.

FIG. 5 is a sectional elevational view taken substantially along the line 5—5 of FIG. 2.

FIG. 6 is a front elevational view, somewhat enlarged, showing the marionette construction of FIG. 1, with parts of the stage structure broken away for clarity of illustration.

FIG. 7 is a side elevational view showing the marionette construction of FIG. 6.

FIG. 8 is a top perspective view showing the marionette construction of FIGS. 6 and 7, but illustrated in operation apart from the stage structure.

FIG. 10 is a fragmentary sectional view taken substantially along the line 10—10 of FIG. 9.

FIG. 9 is a front elevational view showing a slightly modified control mechanism of the present invention.

FIG. 11 is a top plan view showing another modification of control mechanism in accordance with the instant invention.

FIG. 12 is a fragmentary sectional view taken substantially along the line 12—12 of FIG. 11, and enlarged for clarity of understanding.

Referring now more particularly to the drawings, and specifically to FIG. 1 thereof, there is shown a stage structure, generally designated 20, operatively housing a marionette construction 21. The marionette construction includes a control mechanism, generally designated 22, and a marionette character 23.

The stage structure 20 may be generally boxlike, including a lower wall or bottom 25, upstanding side walls 26 on opposite sides of the bottom wall, and a rear wall 27 upstanding from the bottom wall and extending laterally between the side walls. A front wall 28 upstands from the forward region of the bottom wall 25, and is provided with openable closures or doors 29 affording visual access to the interior of the stage structure.

The upper end region of the boxlike structure 20 may include a forward closure flap 30, and a rearward closure flap or lid 31 connected to the rear wall 27 through an upper end cutout 32 by an extension 33. The front doors 29, flap 30 and lid 31 are all shown in FIG. 1 in their open, operative condition of use, but, of course, it is understood that they may be closed to define a container for the marionette 21.

In addition, the structure 20 may have a wear plate or pad 35 on its lower wall, as best seen in FIGS. 6 and 7, for engagement with the marionette character 23. Also, in the upper region of the structure 20, secured to each side wall 26, is a generally horizontal, forwardly and rearwardly extending mounting piece 36, one such piece being shown in FIGS. 1 and 3. A pair of generally horizontal, laterally extending support bars or rods 37 and 38 are arranged in forwardly and rearwardly spaced relation extending between and secured to the mounting pieces 36. As best seen in FIG. 3, the support bars 37 and 38 are approximately at the same level as the hinged connection 39 of the lid extension 33 to the rear wall 27. The hinged connection 39 defines the lower boundary or edge of the upwardly opening rear wall cutout 32.

The marionette character 23 may be of any suitable construction, the clown figure being shown for purposes of illustration and without limiting intent. By way of example, the marionette character may be any desired animal figure, as well as a completely fanciful figure, in addition to any desired simulated human. The marionette character will, of course, have one or more movable or articulatively connected parts, such as the lower limbs or legs 41, arms 42 and mouth 43. Connected to various parts of the marionette character 23 are several flexible elongate actuating members or lines, such as lines 44 each having its lower end connected to the foot of a respective limb 41, lines 45 each connected at its lower end to a respective arm 42, and a line 46 connected at its lower end to the movable mouth part 43. In addition, one or more actuating lines 47 may be connected at their lower ends to a hat 48 of the character 23, and another actuating line 49 may be connected at its lower end to the rear portion of the character. Of course, the number of actuating lines, and the region of their connection to the marionette character, as well as the manner of connection thereto, may be varied, as desired.

The control mechanism 22 is shown in FIGS. 1, 3, 6 and 7 as resting on the support bars 37 and 38 in the upper region of the stage structure 20, and may include a generally platelike part or body 51 superposed generally horizontally on the support bars. The body 51 is preferably provided with a generally coplanar extension 52 which may project rearwardly through the cutout 32 of the rear stage wall 27. While the body 51 may be of any different configurations, as may be desired, it is shown herein as being of generally rectangular configuration, see FIG. 2, having a front edge 54, side edges 55 extending rearward from the front edge, and a laterally extending rear edge 56. The handle or handgrip extension 52 may extend rearward from medially of the rear edge 56.

As noted hereinbefore, the generally platelike body 51 of the control mechanism 22 is adapted, in one condition of use, to rest on the support members 37 and 38, and for this purpose may be provided on its underside adjacent to the forward edge 54 with suitable support-engaging means, such as a pair of depending lugs 57 having downwardly facing, arcuate cutouts 58, see FIG. 3, for snap engagement over the forward support member 37. The body 51 may also be formed with a pair of laterally spaced, laterally extending elongate slots 58, located adjacent to and along the forward edge 54. In addition, a generally forwardly and rearwardly extending cutout or slot 59 may be formed in the body 51, laterally medially thereof; and, raised formations or bosses 60 may be provided on the upper surface of the body 51 adjacent to the cutout 59, all for purposes appearing in detail hereinafter.

Upstanding from the upper side of the body 51, adjacent to each rear corner thereof, is a mount or journal pedestal 62. One such pedestal is best seen in FIGS. 4 and 5 as including a generally horizontal base 63 resting flat on the body 51, and a pair of spaced legs or ears 64 upstanding from the base and secured thereto, integrally or otherwise. Each journal pedestal 62 is mounted on the body 51 for rotation about a generally vertical axis, as by a fastener pin 65 extending generally vertically through the base 63 and supporting body 51. Laterally inward of and adjacent to each rotatable journal pedestal 62 is located a journal pedestal or mount 67, which also includes a generally horizontal base 68, see FIGS. 3 and 4, and a pair of spaced upstanding ears or legs 69 on the base. However, each of the pedestals 67 may be fixed relative to the body 51, say by integral formation therewith.

A pair of generally forwardly and rearwardly extending operating members or levers 71 are respectively mounted on the pair of journal pedestals 62. More specifically, each lever 71 has an intermediate portion extending between the legs 64 of the associated pedestal 62 and is pivotally connected thereto by a generally horizontal pin 72. The forward region 73 of each lever 71, forward of the fulcrum region or pivot 72, is preferably longer than the rearward lever region 74 behind the pivot pin, for a purpose appearing presently. The levers 71 each terminate at its forward end in the region of and above a respective slot 58, and is provided in its forward region with a through opening or hole 75, while the rearward region 74 is provided on its distal end with a finger press or button 76.

Additional operating members or levers 78 are each pivotally mounted intermediate their ends on a respective journal pedestal 67 by a generally horizontal pin 79. The forward region 80 of each lever 78 extends toward and terminates short of the adjacent slot 58, and is advantageously of greater length than the rearward lever portion 81 behind the pin 79. The forward distal end of each lever region 80 is provided with a through opening or cutout 89, while a finger press or push button 90 is provided on the rearward distal end of each rear lever region 81.

As best seen in FIGS. 3 and 4, the journal pedestals

62 are each of greater height than the journal pedestals 67, and the levers 71 are thereby mounted by their pins 72 at greater elevation than the levers 78. By this arrangement, the levers 71 may swing or rotate upon their swivel pedestals, as about the axes of pins 65, with each forward lever region 73 being adapted to swing over the adjacent forward lever region 80, all without interference therebetween. Also, to insure proper minimum elevation of the forward lever regions 73, there are provided on the body 51, beneath each forward lever region, an upstanding stop or rest 92 for limiting engagement with the adjacent forward lever region. In order to limit pivotal or swivel movement of the mounts 62, there may be provided on the body 51 upstanding lugs or bosses 93, see FIG. 2, for limiting engagement with the mounts upon swivel movement thereof.

The lower limb or leg lines 44 each extend upward through a respective hole 95 in the body 51, thence upward through the opening 89 in the adjacent lever 78, and thence outward beyond the lever and downward for anchoring, as at 96 to the body 51, see FIG. 4. Thus, each actuating line 44 has its upper end anchored to the body 51 and has an intermediate region thereof extending slidably through a respective lever opening 89 and over the associated lever. Similarly, each arm-actuating line 45 extends upward, loosely through a respective slot 58, passing slidably through a cutout 75 of the adjacent lever 71, over the adjacent lever, and has its end anchored to the body 51, as at 98, see FIG. 5. Therefore, each actuating line 45 has its upper end anchored, at 98, to the body 51, and has an intermediate region extending slidably through and over a respective lever 71.

It will thus be apparent that by push-button operation, as of the buttons 90, the lower limbs or legs 41 of the character 23 may be raised or lowered, as desired. Further, by finger operation of the push buttons 76, the arms 42 may be raised or lowered; and, by swinging movement of the levers 71 about the pivotal axes of pins 65, the arms may also be moved laterally, as desired. In addition to the extreme simplicity of this push-button operation, relatively little finger movement is required, both by reason of the relatively long forward lever regions 73 and 80, and further by reason of the sliding reception of the actuating lines by their respective levers, which effectively doubles the imparted motion over that of a direct connection.

The mouth- or lip-actuating line 46 may pass upward loosely through a hole 100 in the body 51, and thence rearwardly to a finger hold or ring 101 which may be detachably engaged over a lug or hook 102 on the handle 52. The lip or mouth may thus be actuated by movement of the line 46 in any suitable manner, as by placing the ring 101 on the operator's finger, or other desired mode of operation. Also, the line 49 connected to the rear portion of the character 23 may extend upwardly through the body 51 for connection at its upper end to a button or knob 103.

In addition, the lines 47 may be connected at their upper ends to an operating member 105, which may include a generally vertical stem or shank 106 extending movably through the cutout 59 and provided intermediate its ends with an enlargement or shoulder 107, see FIG. 3, resting on the upper surface of body 51. The upper end of shank 106 may be provided with a manual grasping knob 108, while a lateral crosspiece 109 may be provided on the lower end of the shank spaced beneath the body 51, to the ends of which are connected the lines 47. The operating member 105 is thus manually movable by the knob 108, and is removably retained in position by engagement with the bosses 60. That is, the operating member 105 may be moved along the cutout 59 by elevation sufficient to clear the bosses 60; and, additional degrees of movement may also be imparted to the operating member 105 for actuating the head. If the body 51 is tilted downward, the head will drop lower as 105

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slides forward. The body string at the back 49 will hold the puppet at the hip and the head will simulate a bow. By turning 105, the head will turn to say "No," and by turning hard right and left, it will cause the body to sway.

While operation of the instant marionette has been heretofore described as with the marionette character 23 in the stage structure 20 and the control mechanism 22 also mounted in the stage structure, it is seen in FIG. 8 that the marionette is capable of use apart from the stage structure. Thus, the handle 52 may be grasped by an operator to hold the body 51 properly elevated; and, the push buttons 76 and 90, and other parts may be operated by the user, either with the same hand or the other hand, or both.

A slightly modified embodiment is shown in FIGS. 9 and 10, wherein a control mechanism 22a includes a generally platelike body 51a having along opposite side edges 55a a pair of upstanding ears or legs 112. A single, generally horizontal pivotal support or pin 113 may extend laterally between and be supported by the upstanding legs 112; and, the several operating members 71a and 78a may all be pivotally mounted on the single pin 113. As seen in FIG. 10, the outer levers 71a may each be carried on a mount 114, which is pivotally supported by the horizontal pin 113, and in turn carries the respective lever 71a, being connected thereto by a generally vertical pin or fastener 65a. By this means, each operating member or lever 71a is mounted for swinging movement about both horizontal and vertical axes, as in the first-described embodiment.

A further embodiment of control mechanism is generally designated 22b in FIGS. 11 and 12, and may include a generally boxlike body 71b having a lower wall 120, an upstanding peripheral side wall 121 on the lower wall, and an upper wall 122 on the upper end of the side wall. A plurality of generally vertically elongate operating members 123 are carried by the body 71b, one being shown in detail in FIG. 12. Each operating member 123 includes an elongate shank 124 extending vertically through the body 71b, having its lower and upper ends projecting respectively beyond the lower and upper body walls 120 and 122. An enlargement or collar 125 may be provided on the shank 124 between the lower and upper body walls, and is engageable with the underside of the upper body wall to limit upward movement of the shank. Suitable resilient means, such as a coil compression spring 126 may be employed in operative engagement between the shoulder 125 and upper side of the lower body wall 120 to resiliently urge the shank upward. Depending from the underside of the lower body wall 120, on opposite sides of the lower shank end, are a pair of body parts 127 and 128, and a through opening or hole 129 is formed in the lower end region of the shank 124. An actuating line 130 may extend slidably through an opening 131 in one of the depending body parts 128, and thence slidably through the lower shank end opening 129, for anchoring, at 132 to the body part 127. On the upper end of each shank 124 may be provided a finger press or button 133.

It will now be apparent that finger actuation of the operating member 123, as by depressing the button 133 serves to raise the lower end of line 130 an amount approximately double the linear of the operating member. Of course, spring 126 returns the operating member 123 upward upon release, which effects downward return of the lower end of line 130, and the marionette-character part connected thereto.

From the foregoing, it is seen that the present invention provides a marionette or puppet construction which fully accomplishes its intended objects and is well adapted to meet practical conditions of manufacture and use.

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

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the spirit of the invention and scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a marionette construction, a marionette character, actuating lines having their lower regions connected to various parts of said character, and a control mechanism connected to said lines for actuating said character, said control mechanism comprising a body, means for mounting a plurality of operating members for vertically arcuate movement on said body and means connected to respective lines for raising and lowering parts of said character, said lines each extending from said character movably over the respective operating member and having its end immovably anchored directly to said body, for increased movement of said lines and character parts upon operating-member movement.

2. A marionette construction according to claim 1, said body comprising a generally flat main portion, and a handle extending fixedly from said main portion for manually holding said body for manipulating said operating members by the fingers of the same hand that holds said body.

3. A marionette construction according to claim 2, at least some of said operating members each comprising a lever, and a journal pedestal extending from said main body portion and mounting each of said levers for swinging movement about a generally horizontal axis.

4. A marionette construction according to claim 3, one of said operating members being mounted on said main body portion for swinging movement about a generally vertical axis to effect lateral movement of its associated line and character part.

5. In a marionette construction, a marionette character, actuating lines having their lower regions connected to various parts of said character, and a control mechanism connected to said lines for actuating said character, said control mechanism comprising a body, a plurality of operating members mounted on said body for up-and-down movement and connected to respective lines for raising and lowering parts of said character, said lines each extending from said character movably over the respective operating member, and having its end immovably anchored directly to said body for increased movement of said lines and character parts upon operating member movement, a press button on each of said operating members for finger actuation thereof, at least one of said operating members comprising a lever carrying the associated press button and mounted for swinging movement about a generally horizontal axis, and mounting means mounting said lever on said body for lateral movement in addition to said up-and-down movement.

6. In a marionette construction, a marionette character, actuating lines having their lower regions connected to various parts of said character, and a control mechanism connected to said lines for actuating said character, said control mechanism comprising a body, a plurality of operating members mounted on said body for up-and-down movement and connected to respective lines for raising and lowering parts of said character, said lines each extending from said character movably over the respective operating member, and having its end immovably anchored directly to said body for increased movement of said lines and character parts upon operating member movement, said body comprising a generally flat main portion and a handle extending fixedly from said main portion for manually holding said body for manipulating said operating members by the fingers of the same hand that holds said body, at least some of said operating members each comprising a lever and a journal pedestal extending from said main body portion and mounting each of said levers for swinging movement about a generally horizontal axis, one of said journal pedestals being mounted on said main body portion for swinging move-

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ment about a generally vertical axis to effect lateral movement of its associated line and character part.

7. A marionette construction according to claim 6, said one journal pedestal extending from the main body portion beyond the adjacent journal pedestal, for unobstructed swinging movement of the lever associated with said one pedestal about said vertical axis.

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