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(54) **ELECTRONIC TOY SET WITH A CONTROLLABLE FIGURE**

Related U.S. Application Data

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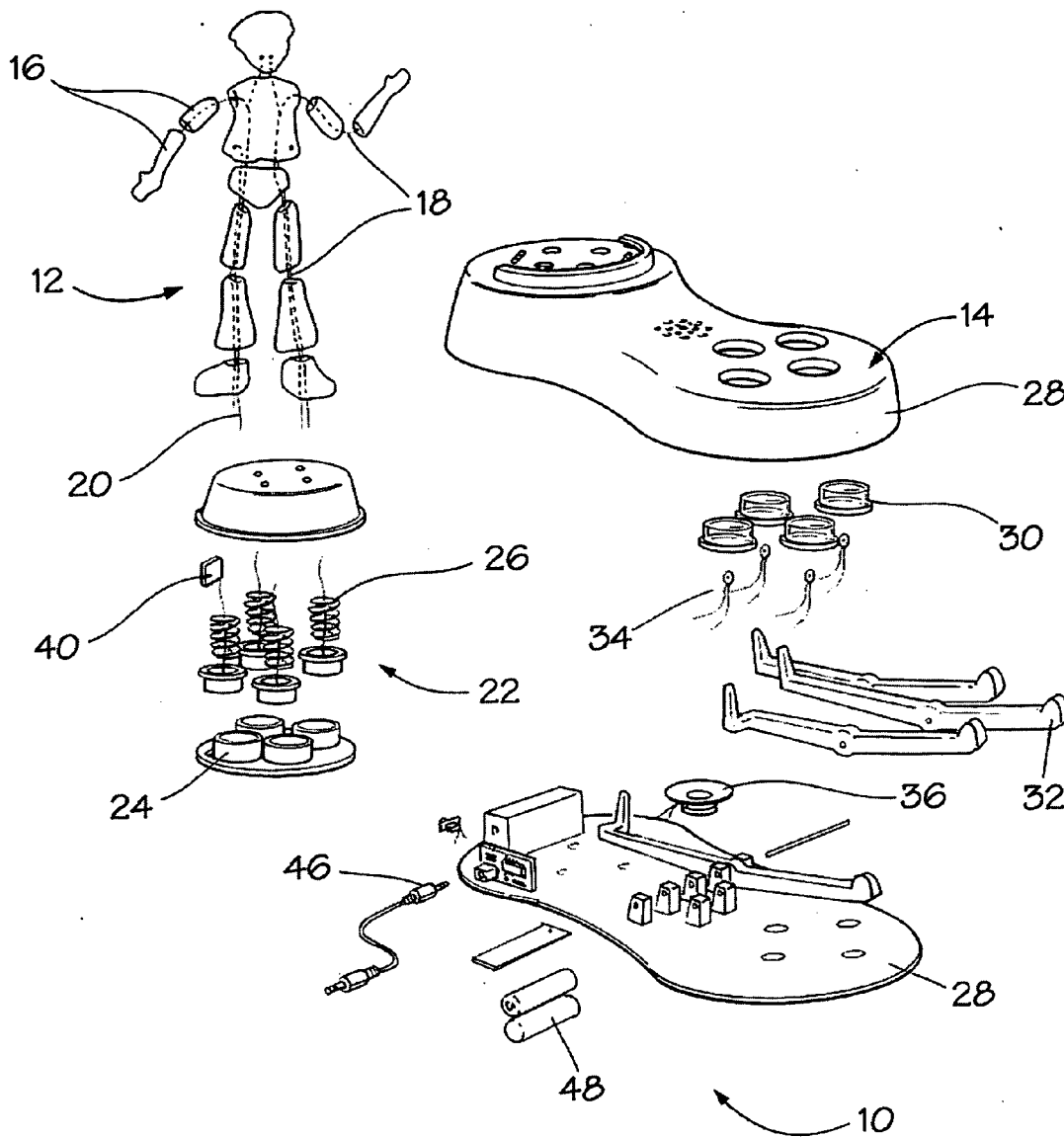
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(57) **ABSTRACT**
A toy game set that includes a plurality of buttons coupled to a housing. The housing includes a processor and speaker that can generate music. The buttons can be depressed by the user to move the figure. The user can move the figure in rhythm with the music. The figure can be a mechanical doll. Alternatively, the figure can be displayed by a screen.

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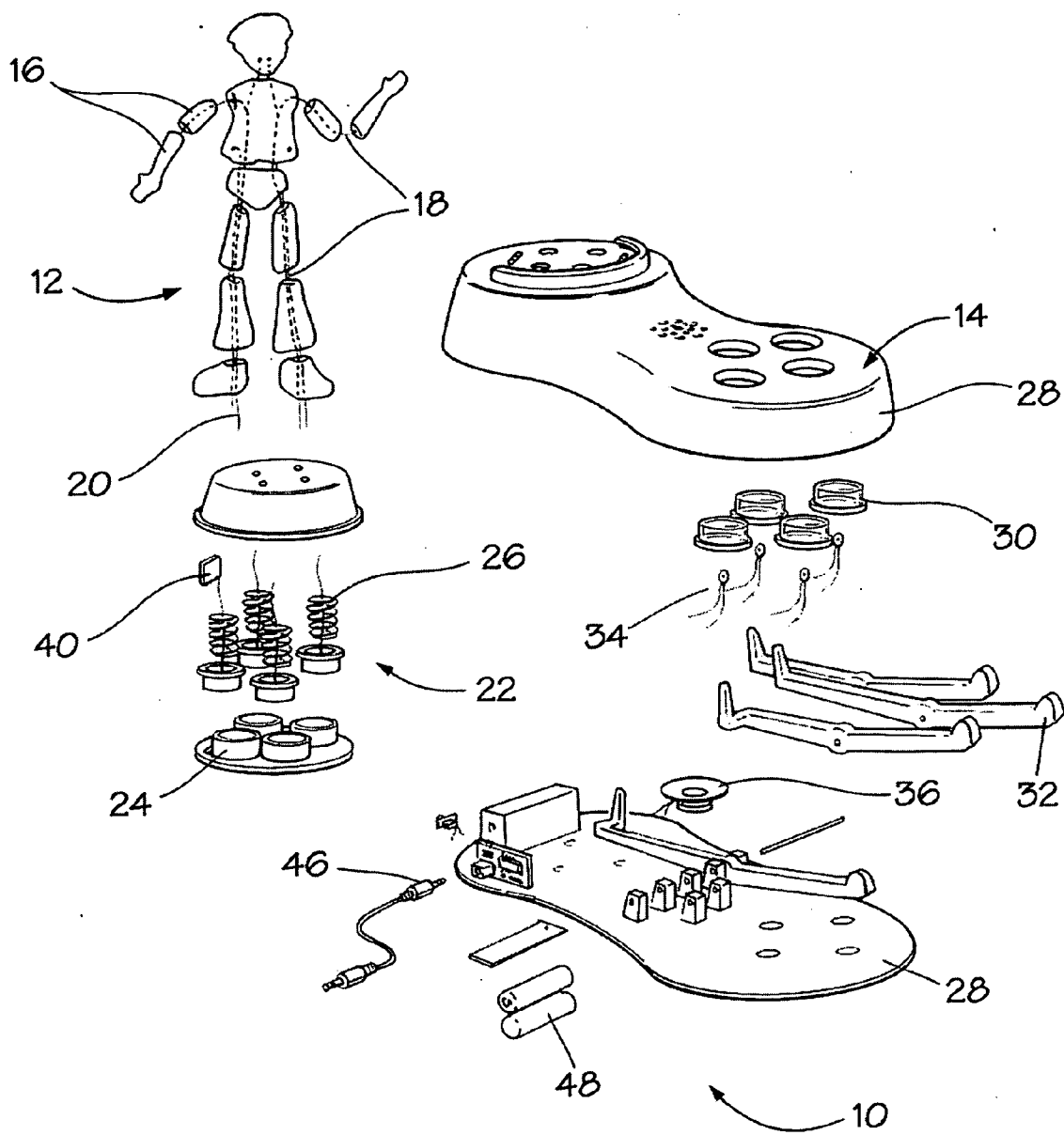


FIG. 1

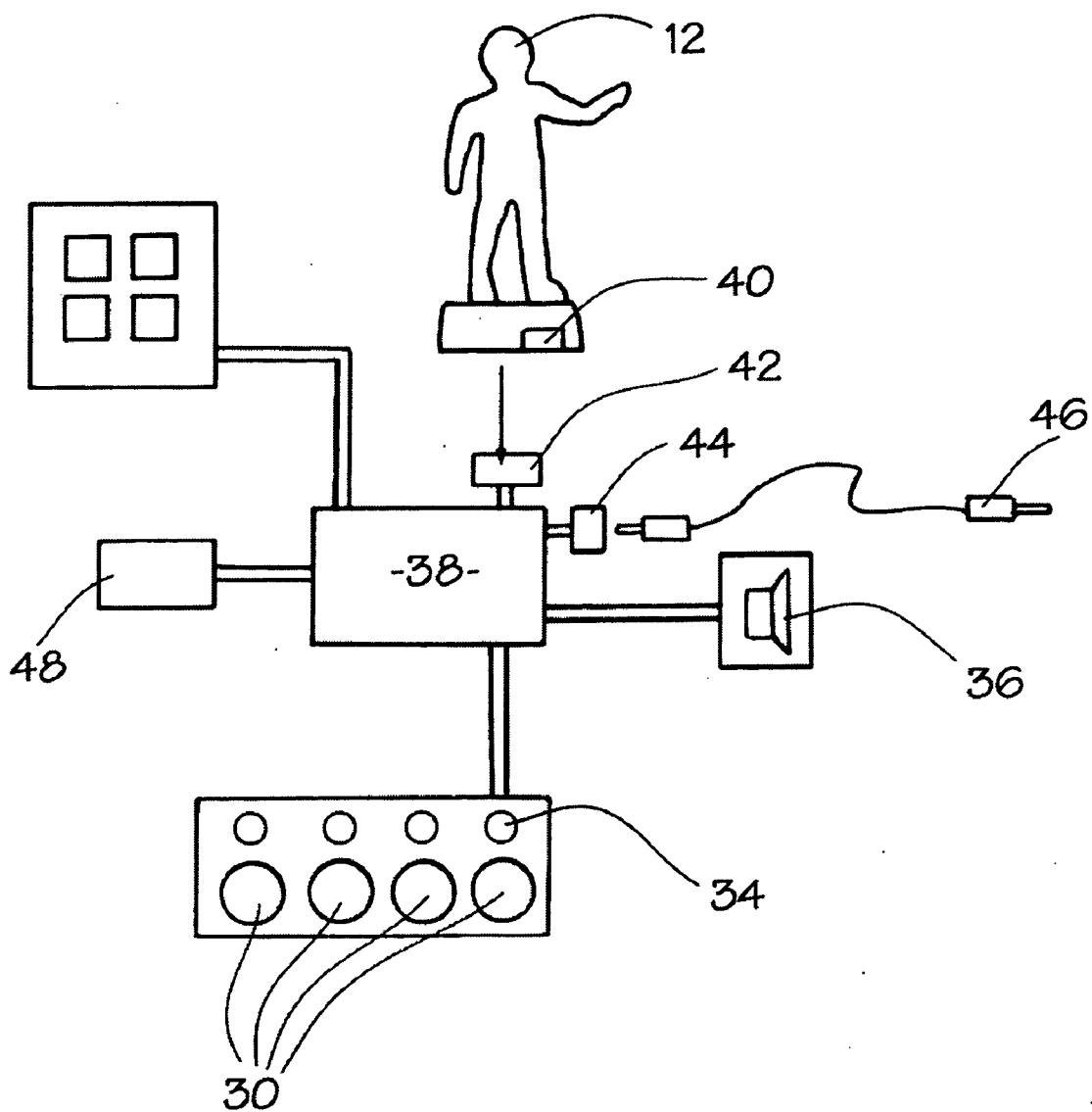


FIG. 2

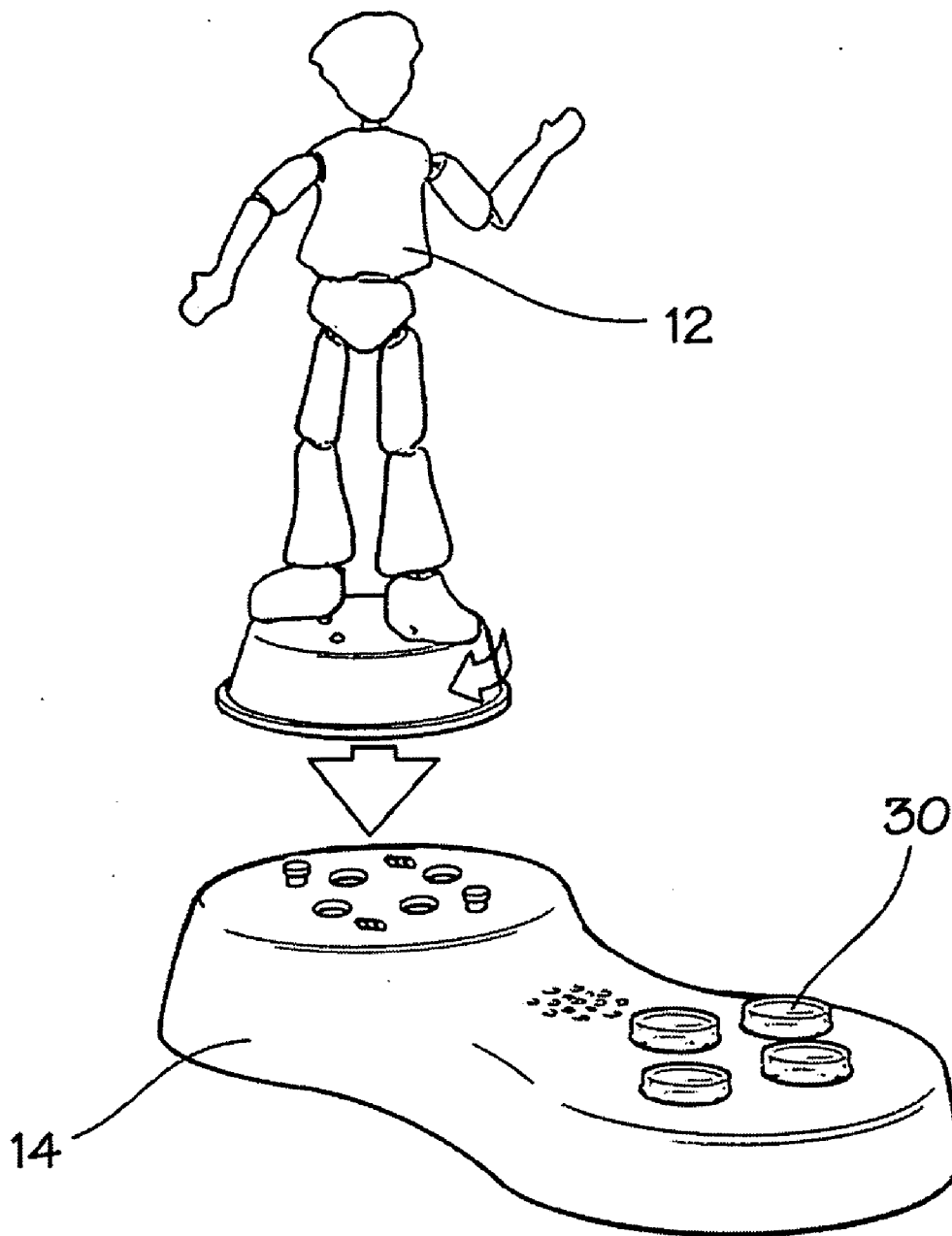


FIG. 3

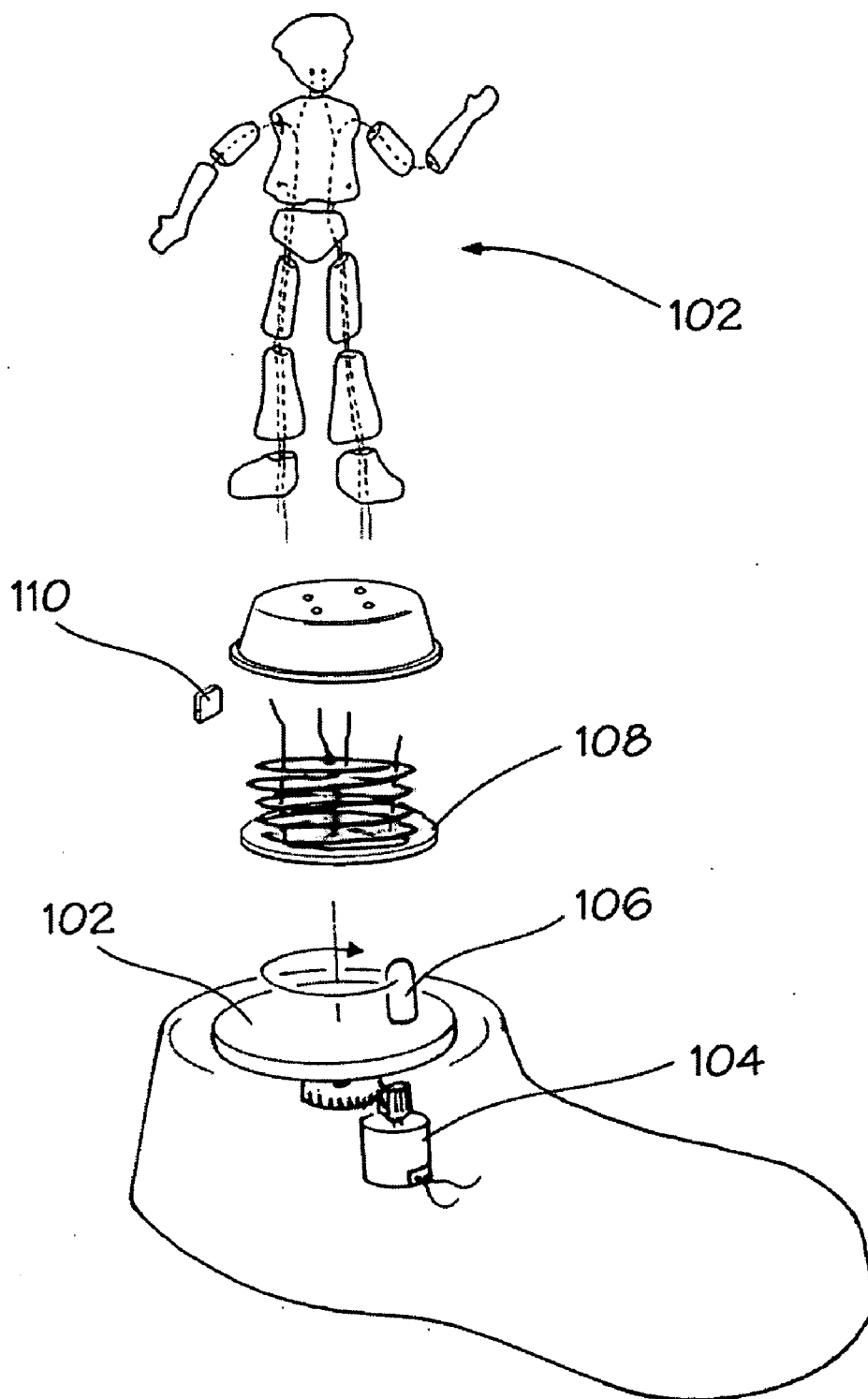


FIG. 4

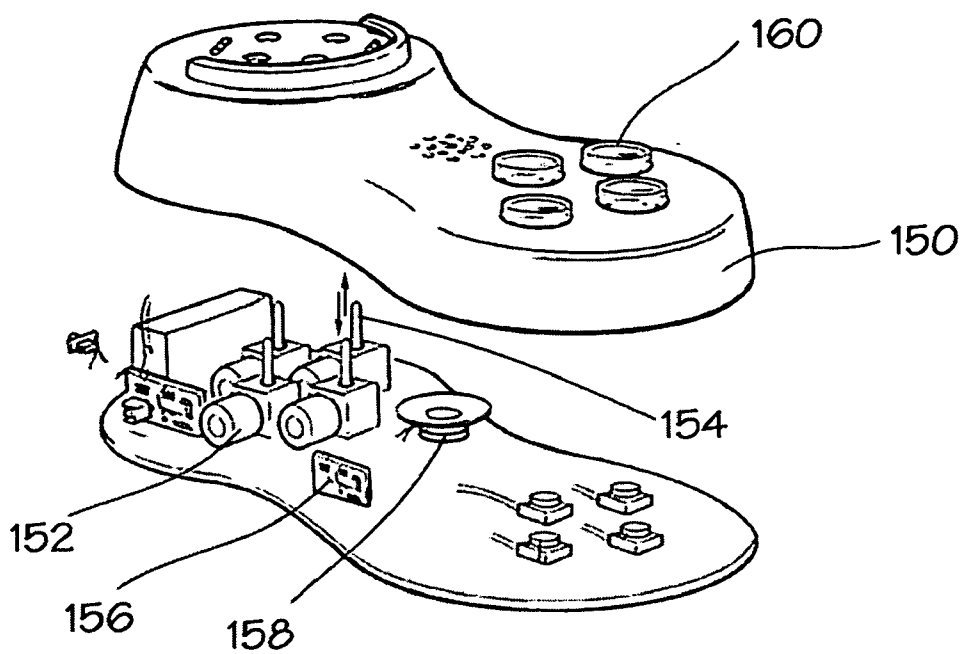


FIG. 5

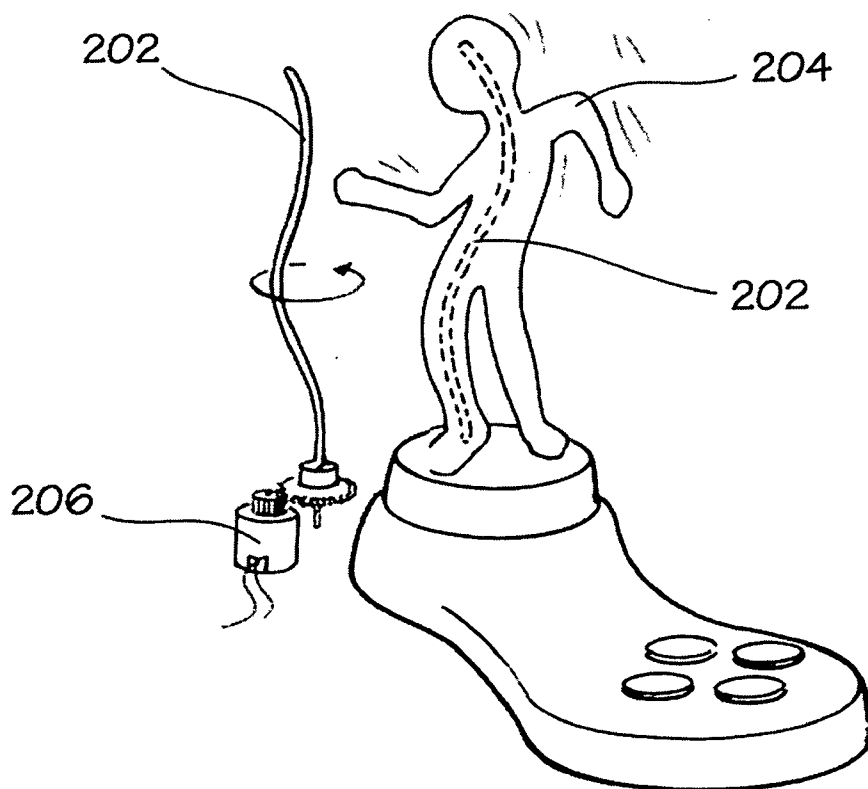


FIG. 6

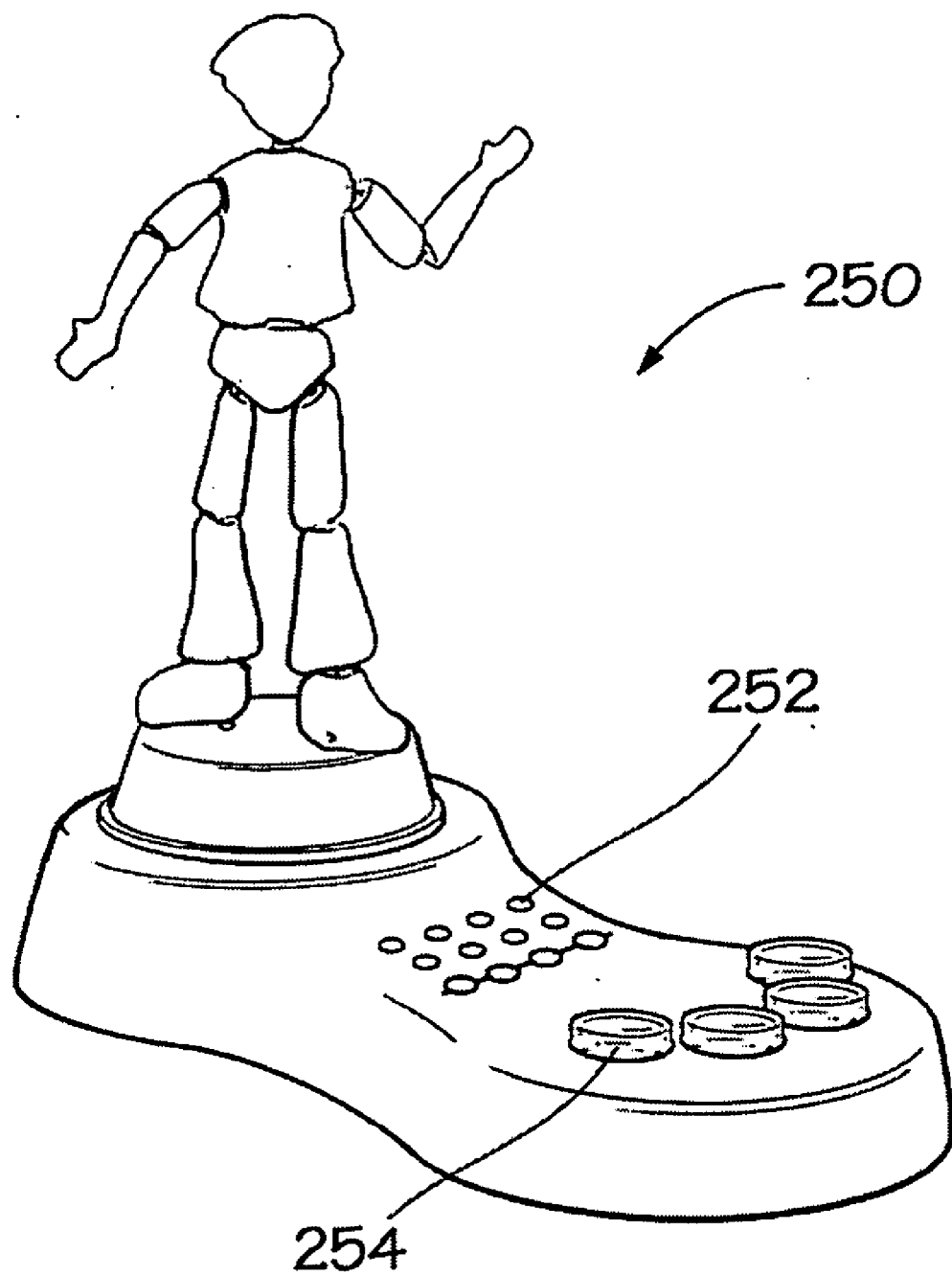


FIG. 7

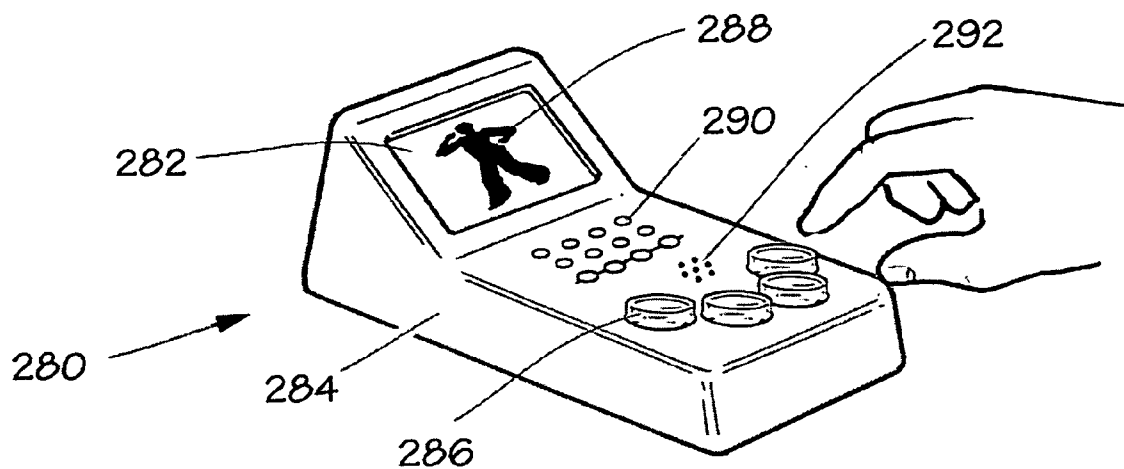


FIG. 8

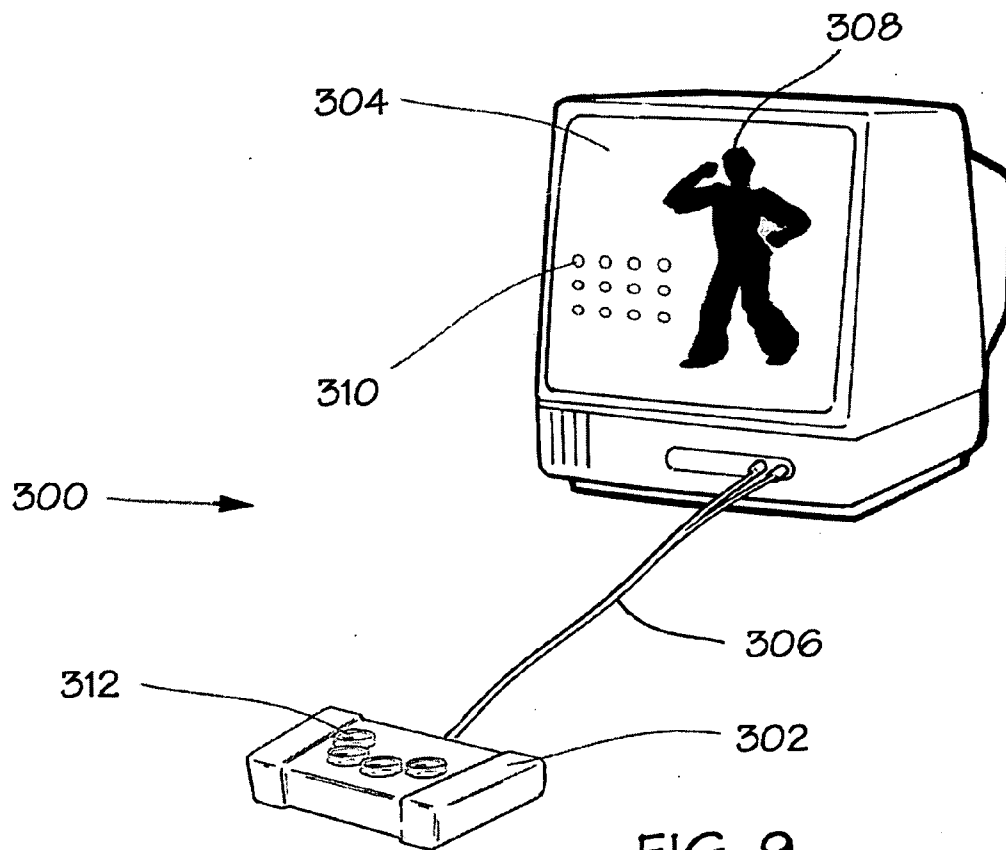


FIG. 9

ELECTRONIC TOY SET WITH A CONTROLLABLE FIGURE

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority to Application No. 60/726,767, filed on Oct. 14, 2005.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The present invention relates to a toy figure.

[0004] 2. Prior Art

[0005] There have been marketed toy figures that can be operated by a user. For example, there have been marketed figures with multiple joints that are attached to a plate by wires or strings. The plate can be pushed by the user to relax the joints and move the figure. Such a toy has a limited play action. It would be desirable to provide a toy figure that has a more sophisticated play action.

[0006] There have been marketed games that prompt a certain response from a user. For example, Hasbro Games marketed an electronic handheld game under the name BOP-IT that generated audio commands for the user to pull, twist or hit a moveable unit in a certain sequence. Points were awarded for successful responses. There has also been marketed electronic dance mats. The dance mats include a screen to prompt certain dance steps and a mat with portions that became illuminated to prompt movement of the user's feet.

BRIEF SUMMARY OF THE INVENTION

[0007] A toy game set that includes a figure coupled to a base. The game set includes an input device that can be manipulated to move a figure. The figure can be either a mechanical device or displayed by a screen. The game set further includes a speaker that generates music.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] FIG. 1 is an illustration of a toy game set;

[0009] FIG. 2 is a schematic of the toy game set;

[0010] FIG. 3 is an illustration of a figure being attached to a housing;

[0011] FIG. 4 is an illustration of an alternate embodiment of the toy game set;

[0012] FIG. 5 is an illustration of an alternate embodiment of the toy game set;

[0013] FIG. 6 is an illustration of an alternate embodiment of the toy game set;

[0014] FIG. 7 is an illustration of an alternate embodiment of the toy game set;

[0015] FIG. 8 is an illustration of an alternate embodiment of the toy game set;

[0016] FIG. 9 is an illustration of an alternate embodiment of the toy game set.

DETAILED DESCRIPTION

[0017] Disclosed is a toy game set. The toy includes a plurality of buttons coupled to a housing. The housing includes a processor and speaker that can generate music. The buttons can be depressed by the user to move the figure. The user can move the figure in rhythm with the music. The figure can be a mechanical doll. Alternatively, the figure can be displayed by a screen.

[0018] Referring to the drawings more particularly by reference numbers, FIGS. 1 and 2 show an embodiment of a toy game set 10. The toy 10 includes a FIG. 12 that can be attached to a housing 14. The FIG. 12 may include a plurality of individual components 16 that can move about a number of figure joints 18. The FIG. 12 may have a plurality of wires 20 that are attached to the various components 16 and a mechanism 22. The mechanism 22 may include a plate 24 and plurality of springs 26 that are coupled to strings or wires 20. Movement of the plate 24 can move the wires 20 into and out of tension such that the figure components 16 move about the joints 18.

[0019] The housing 14 may be constructed from two different halves 28. By way of example, the housing halves 28 may be constructed from molded plastic material. Likewise, the FIG. 12 components 16 may be molded plastic such as a high impact styrene. The toy 10 may have an input device such as a plurality of buttons 30 that can be depressed by a user. The buttons 30 can be coupled to the figure plate 24 by a plurality of linkages 32. Pushing button 30 rotates a corresponding linkage 32. The linkage 32 then moves the plate 24 and FIG. 12. The toy 10 may include lights 34, such as LEDs, that become illuminated when the user presses a corresponding button 30. The lights 34 may become illuminated in a pattern to prompt the user to press the buttons in the same pattern.

[0020] The toy 10 includes a speaker 36 that is connected to a processor 38. The processor 38 can provide electrical signals to drive the speaker 36 and generate music. By way of example, the processor 38 may include memory that stores a plurality of songs that can be generated through the speaker 36.

[0021] The FIG. 12 may include an electrical identification device 40. The housing 14 may include electrical contacts 42 that sense the identification device 40. Each FIG. 12 may have a unique ID provided by the device 40. By way of example, the device 40 may be a resistor, wherein each figure has a resistor of a different ohmic value. Alternatively, the device 40 may be a circuit that stores an electronic ID that is then provided to the processor 38. As another alternative, the device 40 may be a circuit that contains a song or songs that can be played through the processor 38 and speaker 36.

[0022] The processor 38 can generate a song that is unique to the FIG. 12. One FIG. 12 may cause the generation of one song or set of songs, another figure will cause the generation of another song or set of songs. The housing 14 may include an electrical connector 44, such as a mini-jack or a mini-jack port, that allows the processor 38 to be coupled to an external source of music through a cable 46. The electrical components can be powered by one or more batteries 48.

[0023] As shown in FIG. 3 the FIG. 12 can be attached to the housing 14. The toy FIG. 12 and housing 14 may have

mechanical features that lock the FIG. 12 into place. The processor 38 and speaker 36 can then generate a song. The user can depress the buttons 30 to move the FIG. 12. The user can attempt to move the FIG. 12 in rhythm with the music. The FIG. 12 can be detached from the housing 14 and replaced with a different FIG. 12. The processor 38 can read the ID of the new figure and generate a different song or set of songs. The user again attempts to move the FIG. 12 through the buttons 30 in step with the rhythm of the music.

[0024] FIG. 4 shows an alternate embodiment of the toy FIG. 100 with a FIG. 102 attached to a housing 102. In this embodiment, the housing 102 has a cam 102 that is rotated by a motor 104. The motor 104 may also continually move the figure while the user provides additional movement through the buttons.

[0025] The cam 102 has a pin 106 that moves a plate 108 of the FIG. 102. Movement of the plate 108 moves the FIG. 102 into different positions. The FIG. 102 may include a circuit 110 that stores one or more songs that are played through a speaker (not shown) of the housing. The motor 104 may move the FIG. 102 in rhythm with the song. The toy 100 may also have input buttons (not shown) coupled to the motor that allow the user to move the FIG. 100 in rhythm with the music.

[0026] FIG. 5 shows another embodiment, wherein the housing 150 includes a plurality of solenoids 152. The solenoids 152 include plungers 154 that can move up and down to move a plate (not shown) of a figure. The housing 150 may include a circuit 156 coupled to the solenoids 152 that moves the figure in rhythm with music generated from a speaker 158 of the housing 150. The housing 150 may include buttons 160 that can be depressed by the user. The buttons 160 are coupled to the circuit 156 and/or solenoids 152. Depressing the buttons 160 can cause a corresponding activation of the solenoids 152 and movement of the figure.

[0027] FIG. 6 shows another embodiment, wherein the FIG. 200 has a single wire 202 extending through a torso 204. The wire 202 is coupled to a motor 206. The wire 202 may be eccentric so that rotation by the motor causes movement of the FIG. 200.

[0028] FIG. 7 is another embodiment, wherein the toy FIG. 250 includes a plurality of lights 252. There may be a light or set of lights 252 associated with each button 254. The lights 252 can be illuminated to prompt the user to push certain buttons 254. For example, the light on the left hand side can be illuminated to prompt the user to depress the button 254 on the left hand side. The lights 252 may be arranged into rows of lights wherein the lights can be illuminated to allow the user to anticipate which buttons should be depressed next. For example, in one row of lights a single light may be illuminated, followed by two lights then three lights. This sequence of lights allows the user to anticipate when the button associated with the row of lights should be depressed. The lights 252 can be illuminated in a pattern to prompt the user to depress the buttons 254 in the same pattern and at the exact time when either all lights within a row are illuminated, or when one final light, in a sequence of previously lit lights, is illuminated. The pattern may be such that the FIG. 256 moves in rhythm with the music. The toy may generate a score that corresponds with the number of times the user correctly depresses a button and/or when the timing of when the button is depressed relative to the illumination of lights within a row.

[0029] FIG. 8 is another embodiment of a toy game set 280 constructed as a hand held unit. The game set 280 includes a screen 282 attached to a housing 284. The game 280 has a plurality of buttons 286 that can be manipulated by the fingers of a user. The screen 282 may display a FIG. 288. The FIG. 288 can move in conjunction with depression of the various buttons 286. The game set 280 may include a plurality of lights 290 that are illuminated in a pattern to invoke a corresponding pattern of button depression by the user. Music may be generated through a speaker 292. The user then depresses the buttons to move the FIG. 288 in rhythm with the music. The game set 280 may include a controller, screen and speaker drivers, etc. located within the housing 284 that control operation of the game.

[0030] FIG. 9 shows another embodiment of a game set 300. The game set 300 includes a console 302 that can be attached to television set 304 or other type of visual display device by a cable 306. The television 304 can display a FIG. 308 and a plurality of graphical lights 310. The console 302 has a plurality of buttons 312 that can be depressed by a user. The console 302 may contain a controller, drivers, etc. that control the operation of the game so that the FIG. 308 moves in conjunction with the user's depression of the buttons 312. The graphical lights 310 can be "illuminated" in a sequence to prompt a corresponding response by the user.

[0031] While certain exemplary embodiments have been described and shown in the accompanying drawings, it is to be understood that such embodiments are merely illustrative of and not restrictive on the broad invention, and that this invention not be limited to the specific constructions and arrangements shown and described, since various other modifications may occur to those ordinarily skilled in the art.

What is claimed is:

1. A toy game set, comprising:
 - a housing;
 - a figure;
 - an input device that can be manipulated to move said figure;
 - a speaker coupled to said housing; and,
 - a processor that is coupled to said speaker to generate music.
2. The toy of claim 1, wherein said figure is detachable from said housing.
3. The toy of claim 1, wherein said figure includes an identification that is sensed by said processor and said processor generates a song that is unique to said figure.
4. The toy of claim 1, wherein said input device includes a plurality of buttons.
5. The toy of claim 4, wherein said buttons become illuminated when pressed.
6. The toy of claim 5, further comprising a plurality of lights that are illuminated in a pattern provided by said processor.
7. The toy of claim 1, wherein said figure has a plurality of joints.
8. The toy of claim 1, wherein said figure includes a plate.
9. The toy of claim 1, further comprising a screen that displays said figure.
10. The toy of claim 9, wherein said screen is attached to said housing.

11. The toy of claim 1, wherein said processor generates a plurality of songs.

12. A toy game set, comprising:

a housing;

a figure;

input means for moving said figure; and,

music means for generating music.

13. The toy of claim 12, wherein said figure is detachable from said housing.

14. The toy of claim 12, wherein said figure includes an identification that is sensed by said music means and said music means generates a song that is unique to said figure.

15. The toy of claim 12, wherein said input means includes a plurality of buttons.

16. The toy of claim 15, further comprising a plurality of lights that are illuminated in a pattern provided by said music means.

17. The toy of claim 15, wherein said buttons become illuminated when pressed.

18. The toy of claim 12, wherein said figure has a plurality of joints.

19. The toy of claim 12, further comprising a screen that displays said figure.

20. The toy of claim 19, wherein said screen is attached to said housing.

21. The toy of claim 12, wherein said music means generates a plurality of songs.

22. A method for operating a toy game set, comprising: generating music; and,

depressing buttons to move a figure.

23. The method of claim 22, further comprising reading an identification of the figure and playing a song that is unique to the figure.

24. The method of claim 22, wherein the figure is moved by pressing a plurality of buttons.

25. The method of claim 22, further comprising illuminating a plurality of lights in a pattern and depressing the buttons in the pattern.

26. The method of claim 25, further comprising illuminating a plurality of lights in a sequence and depressing a button at an exact time indicated by the sequence.

27. The toy of claim 26, further comprising providing a score indicating a correct depression of the button.

28. The method of claim 24, wherein the buttons are illuminated when pressed.

29. The method of claim 22, wherein the figure is displayed by a screen.

30. The method of claim 22, further comprising detaching the figure from the housing and attaching a different figure to the housing, playing a different song and moving the different figure.

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