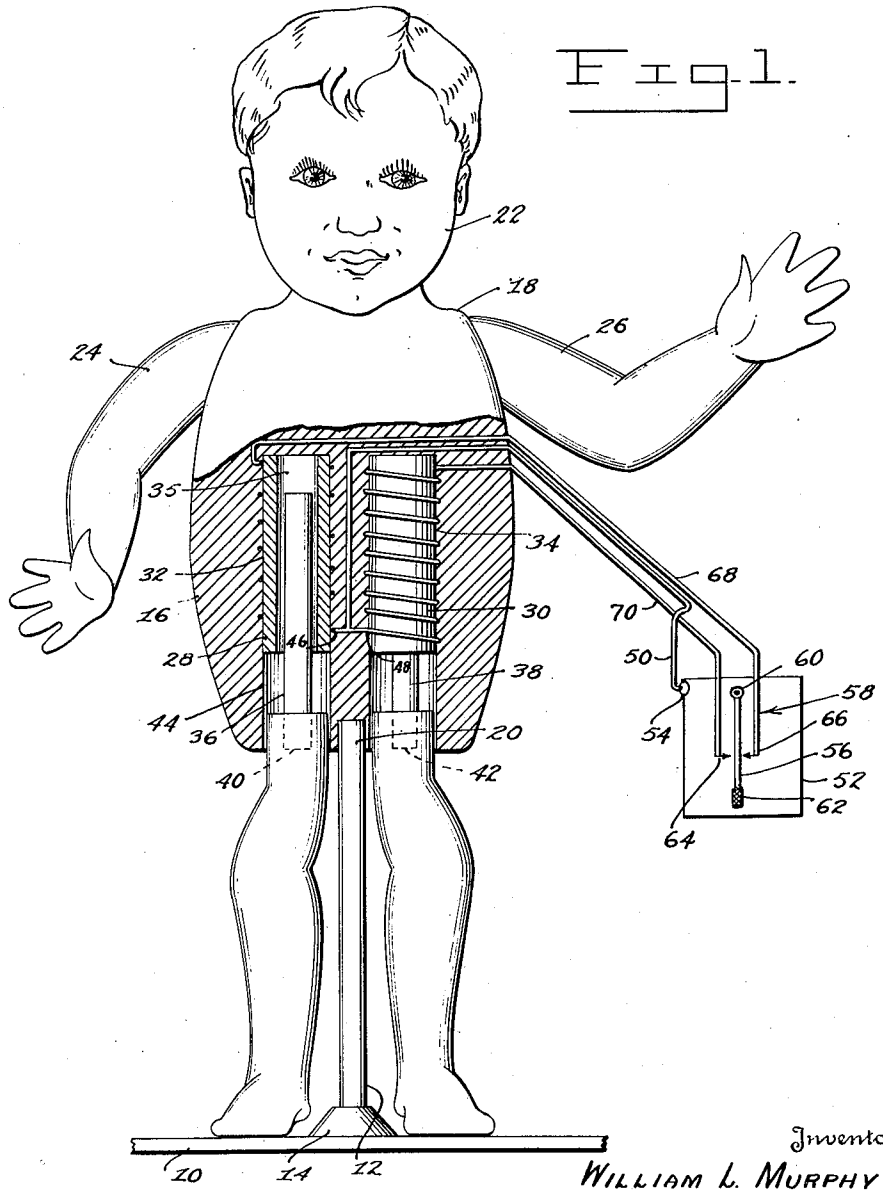
April 4, 1950 W. L. MURPHY 2,502,583

REMOTE CONTROLLED ANIMATED DOLL

Filed Nov. 29, 1946 2 Sheets-Sheet 1

Fig. 1.



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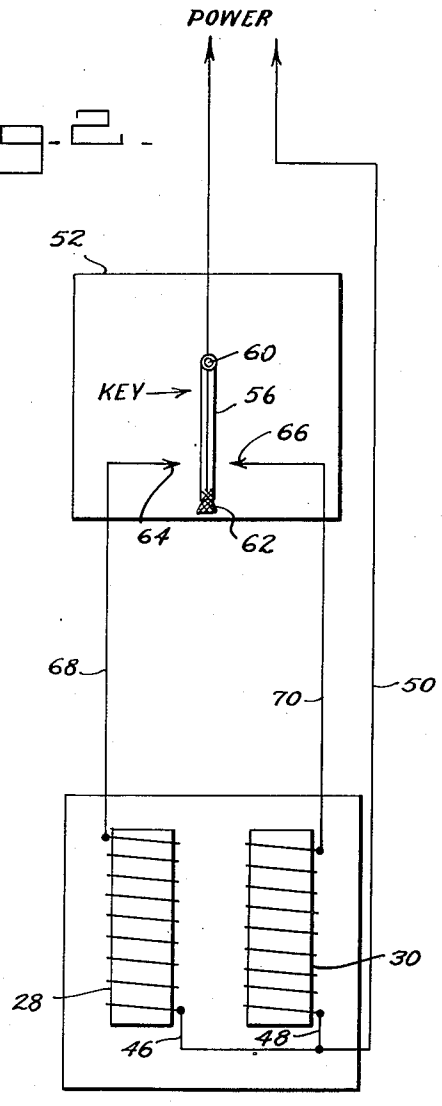
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Fig. 2.



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REMOTE CONTROLLED ANIMATED DOLL

William L. Murphy, Norwood, Ohio

Application November 29, 1946, Serial No. 712,979

5 Claims. (Cl. 46—136)

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This invention relates to animated dolls and the means for animating them.

An object of the invention is to provide a figure in the form of a doll, portions of which are animatable at the will of the operator thereof.

Another object of the invention is to provide an animated dancing figure having a body with depending legs, and having electric means operable at a distance from the figure, for animating the legs to simulate dancing.

A further object of the invention is to provide a remote controlled animated rhythm doll which is simple in design, inexpensive to manufacture, easy to operate, and which may be made to simulate dancing in accordance with a rhythm dictated and controlled by the operator.

Other objects and advantages of the invention will become apparent from the following description of a preferred embodiment thereof as illustrated in the accompanying drawings, and in which:

Figure 1 is a front elevational view of my improved animated doll and the control mechanism therefor, and

Figure 2 is a schematic wiring diagram of the electric circuits for actuating the doll shown in Figure 1.

In order to understand clearly the nature of the invention and the best means for carrying it out, reference may now be had to the drawings, in which like reference characters denote similar parts throughout the several views. As shown, there is a base member 10 with an upright support post 12 secured thereto in any suitable manner as by screws or bolts extending upward through the base and into the enlarged footing portion 14 of the post 12.

The torso 16 of a doll-like figure 18 is supported upon the upper end 20 of the post 12 in any suitable manner, as, for example, by extending the end 20 of the post extent into a socket or recess formed in the lower portion of the torso, being secured therein by glue or cement. The figure 18 is provided with a head 22 and arms 24 and 26.

Two solenoid coils 28 and 30 are disposed in recesses 32 and 34 formed in the body torso, as best shown in Figure 1, the axes of the coils being substantially vertical, and each coil having a hollow cylindrical axial bore 35 formed therein. Iron plungers 36 and 38 extend upward into the axial bores 35 as shown in Figure 1, the lower ends of the plungers being secured in sockets or recesses formed in the upper ends of legs 40 and 42.

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The legs are movable into downwardly open bores in the base of the trunk or torso, forming extensions of the bores 44 in which the plungers slide, thus permitting the upper ends of the legs to be drawn upward into the body trunk when the solenoids are actuated, and hence elevating the lower foot ends of the legs off the base 10. The legs are preferably formed thin and bent at the knees, so that when they are turned with the plungers in the solenoid coils they will give the impression that the figure is moving about on the platform and is dancing.

Wires 46 and 48 on the lower ends of the solenoid coils are connected by means of a common lead wire 50 to one terminal 54 of a source of power contained in a box 52, such as a battery, or the power supply, if outside the box 52, may be connected thereto in any suitable manner. The other terminal of the battery is connected to the movable blade 56 of a switch 58 supported on the top wall of the box 52, the blade being supported at one end 60 and movable laterally by means of the handle 62, to make contact alternately either with the left stationary contact 64, or with the right stationary contact 66, these contacts being connected to the other ends of the solenoid coils 28 and 30 by means of the wires 68 and 70, respectively.

The switch handle 62 may be moved to the left, to actuate the solenoid 28, thus elevating the left leg 40, or to the right to actuate the solenoid 30, thus elevating the right leg 42, and rapid movement of the handle from left to right will thus cause the figure to simulate dancing in any desired rhythm. The figure shown in Figure 1 is only by way of illustration, and other human or animal-like figures may aptly be employed, and also four-legged figures may be used if desired. In the latter case, two sets of solenoid coils may be connected in series or in parallel, and the power supply may be placed under the switch as shown, or under the base 10. Any other part of the body of the figure may similarly be supplied with solenoids and plungers to cause it to move under the influence of the control switch and quite realistic effects may be obtained in this manner.

The invention can be utilized in any application where rhythm and coordination are being emphasized, as, for example, in musical instruction, and it is also valuable as a novelty or toy.

Although I have described a preferred embodiment of my invention in specific terms, it is to be understood that various changes may be made in size, shape, materials and arrangement with-

out departing from the spirit and scope of the invention as claimed.

I claim:

1. A dancing doll, comprising a base, a torso fixed to said base in vertically spaced relation thereto, said torso being formed with a pair of downwardly directed bores therein, a pair of legs for said doll, said legs including feet normally resting on said base and upper ends freely slidable in said bores, a pair of electro-magnetic means in said torso, there being an electro-magnetic means operatively associated with each leg whereby to move each leg vertically in its bore upon energization of its associated electro-magnetic means and means for energizing said electro-magnetic means.

2. A dancing doll, comprising a base, a torso fixed to said base in vertically spaced relation thereto, said torso being formed with a pair of downwardly directed bores therein, a pair of legs for said doll, said legs including feet normally resting on said base and upper ends freely slidable in said bores, a pair of solenoids in said torso, there being a solenoid in axial alignment with each bore, cores for said solenoids operatively associated with said upper ends of said legs, whereby to move each leg vertically in its bore upon energization of its solenoid, and means for energizing said solenoids.

3. A dancing doll, comprising a base, a torso fixed to said base in vertically spaced relation thereto, said torso being formed with a pair of downwardly directed bores therein, a pair of legs for said doll, said legs including feet normally resting on said base and upper ends freely slidable in said bores, a pair of solenoids in said torso, there being a solenoid in axial alignment with each bore, cores for said solenoids, means rigidly connecting said cores to said upper ends of said legs, whereby to move each leg vertically in its bore upon energization of its solenoid, and means for energizing said solenoids.

4. A dancing doll, comprising a base, a torso fixed to said base in vertically spaced relation thereto, said torso being formed with a pair of downwardly directed bores therein, a pair of legs for said doll, said legs including feet normally resting on said base and upper ends freely slidable in said bores, a pair of solenoids in said torso, there being a solenoid in axial alignment with each bore, cores for said solenoids, said upper ends of said legs each being formed with a socket therein axially thereof, one of said solenoid cores being fixed in each socket, whereby to move each leg vertically in its bore upon energization of its associated solenoid, and means for energizing said solenoids.

5. A dancing doll, comprising a base, a torso fixed to said base in vertically spaced relation thereto, said torso being formed with a pair of downwardly directed bores therein, a pair of legs for said doll, said legs including feet normally resting on said base and upper ends freely slidable in said bores, a pair of electro-magnetic means in said torso, there being an electro-magnetic means operatively associated with each leg, each upper end of each leg having an armature fixed thereto and adapted to be attracted by the associated electro-magnetic means upon energization of the latter whereby to move each leg vertically in its bore, and means for energizing said electro-magnetic means.

WILLIAM L. MURPHY.

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