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MAGNET-CONTROLLED SIT-UP PUP

John F. Cavanaugh, Washington, D. C.

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2 Claims. (Cl. 46—45)

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This invention relates to toys of the activated type, and in particular a body representing an animal pivotally mounted on a box with the body held in position by magnets and actuated about the pivot point by a counterweight when released by the magnets.

The purpose of this invention is to provide a novelty in the form of a toy which is operated from one position to another by sound vibration.

Various types of spring devices have been provided for actuating toys and different movements have been incorporated therein; however, devices of this type are manually actuated and require winding or other means of engagement with a hand or the like. With this thought in mind this invention contemplates a toy, preferably in the form of an animal in which the body moves from one position to another when requested.

The object of this invention is, therefore, to provide means for mounting a toy animal or the like whereby the animal is moved by gravity in response to noise vibration.

Another object of the invention is to provide means incorporating a sound responsive element in a pedestal of a toy whereby a magnet is actuated to release the toy as the sound responsive element is actuated.

A further object of the invention is to provide a toy operated by sound responsive elements which is of a simple and economical construction.

With these and other objects and advantages in view the invention embodies a pedestal or box having a solenoid, a battery and a diaphragm therein with the solenoid positioned to actuate a magnet as a circuit is completed thereto by vibration of the diaphragm, and a body of an animal pivotally mounted on the device and having a counterweight in one part and a magnet in the other with the magnet positioned to coact with the magnet in the pedestal or stand for holding the body against the force of gravity resulting from the counterweight.

Other features and advantages of the invention will appear from the following description taken in connection with the drawings wherein:

Figure 1 is a side elevational view of the toy with the box upon which the body of an animal is positioned shown in section, with parts of the animal broken away and shown in section and with the body of the animal illustrated in full lines in one position and in dotted lines in another position.

Figure 2 is a front elevational view of the toy

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as shown in Figure 1 and also showing the box in section, said section being taken on line 2—2 of Figure 1.

Figure 3 is a sectional plan through the box upon which the toy is mounted being taken on line 3—3 of Figure 1.

Figure 4 is a detail showing a section similar to that shown in Figure 3 and in which the magnet is actuated by the coil of the solenoid.

Figure 5 is a detail showing a sectional view similar to that shown in Figure 1 illustrating the position of the magnet with the parts as shown in Figure 4.

Referring now to the drawings wherein like reference characters denote corresponding parts the improved toy of this invention includes a body 10 pivotally mounted by a pin 11 on legs 12 with the legs positioned on a cover 13 of a pedestal or box having a base 14, side walls 15 and 16, an end wall 17 and a screen or grid 18, and the box is provided with a solenoid 19, a battery 20 and a diaphragm 21.

The body 10 is illustrated, as representing a dog and the rear portion of the body is substantially hollow, as shown at the point 22. A counterweight 23 is provided in the body and the counterweight is positioned whereby upon release of the forward end of the body the force of gravity actuates the body to an upright position as indicated by the dotted lines 24, in Figure 1.

The forward leg 25 of the body is provided with a permanent magnet 26 and the magnet is positioned upon an insulating sheet 27 that provides a cover on the box and a similar magnet 28 is positioned in an opening 29 in the cover 13 of the box, and carried by an arm 30.

The arm 30 is carried by a spring 31 which is mounted by a bracket 32 on the wall 15, as shown in Figure 3, and which is provided with an extended end 33 which is positioned to engage a stop 34 on an arm 35 extended from the base 39. The arm 30 is also provided with a plate 36 that is positioned to be drawn by the end of a core 37 of the solenoid 19 whereby, as the circuit is completed to the coil of the solenoid the arm 30 is drawn from the position shown in Figure 3 to that shown in Figure 4.

The bracket 32 is also provided with an arm 38 that is secured to a base 39 by screws 40. The solenoid 19 is mounted on an end 42 on the end of the arm 38.

The diaphragm 21 is mounted with the edges clamped between bands 43 and 44 and a contact 45 carried by the diaphragm is positioned to en-

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gage a contact 46 on an arm 47 that is mounted on the base 14 by a flange 48 with screws 49.

The screen or grid 18 is mounted in a frame 50, which is U-shape in cross-section and the frame is positioned against the end of the box, as shown.

As illustrated in the drawing the contact 45 on the diaphragm is connected by a wire 51 to a terminal 52 of the battery 20 and the opposite terminal 53 of the battery is connected by a wire 54 to one end of the solenoid 19. The opposite end of the solenoid is connected by a wire 55 through the contact 46 to the screw 49 and the support 47.

With the parts positioned as shown in Figure 1 the permanent magnet 28 attracts the magnet 26, holding the animal in the position shown in full lines and when the diaphragm 21 is vibrated by sound, resulting from speech to the animal, the contacts 45 and 46 engage, completing a circuit to the solenoid 19 and with the plate 36 attracted by the core 37 the magnet 28 moves away from the magnet 26, thereby releasing the forward part of the animal so that the animal is actuated to an upright position as shown in dotted lines in Figure 1 by the counterweight 23.

When the sound vibrations cease the body of the animal is moved downwardly by hand and the magnet 26 is again held by the magnet 28 so that the body remains in this position until it is again commanded to sit up.

It will be understood that modifications may be in the design and arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

1. A sound actuated toy comprising a pedestal, a body pivotally mounted on the pedestal, a magnet in the body, a magnet in the pedestal positioned to coact with the magnet in the body to retain the body in one position, a counterweight in the body positioned to actuate the body about the pivot when the magnet in the body is released by the magnet in the pedestal, a solenoid in the pedestal for drawing the magnet in the pedestal away from a position in which it coacts with

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the magnet in the body, a battery in the pedestal, a diaphragm in the pedestal, and contacts actuated by the diaphragm in the pedestal for completing a circuit to the solenoid for drawing the magnet in the pedestal away from the position below the magnet in the body for releasing the body.

2. In a sound actuated toy, the combination which comprises a box, a body having a pair of front legs and a pair of rear legs pivotally mounted through the rear legs on the box, a magnet in one of the front legs positioned to engage the upper surface of the box, a counterweight in the rear portion of the body and positioned to actuate the body to an upright position when the magnet in the front leg thereof is released, a magnet in the box positioned to coact with the magnet in the front leg of the body for retaining the forward part of the body in a downward position, a solenoid positioned in the box, a battery in the box, a diaphragm positioned in an opening in the box, a contact carried by the diaphragm, a contact mounted in the box and positioned to be engaged by the contact of the diaphragm, a circuit electrically connecting the said contacts to the battery and solenoid whereby vibrations of the diaphragm complete circuits to the solenoid, and means actuating the magnet in the box by the solenoid whereby the said magnet is drawn from a position below the magnet in the front leg of the body.

JOHN F. CAVANAUGH.

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