

[54] TALKING TOY

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[51] Int. Cl. A63h 5/00

[58] Field of Search 46/227, 228, 232, 236, 46/238, 175 AR; 273/161

[56]

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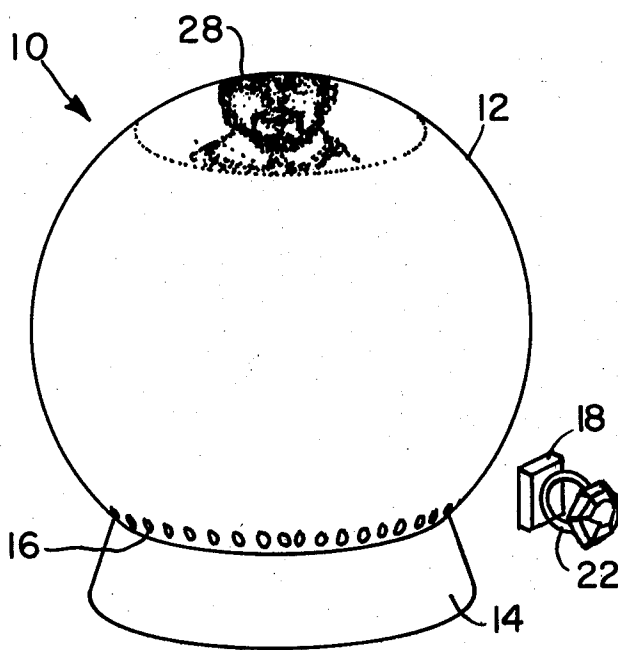
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[57]

ABSTRACT

A talking toy with the outward appearance of a crystal ball, contains a battery-operated voice box. The voice box is turned on by a switch including a magnet which is positioned inside and adjacent to the toy's housing. The toy is activated whenever a second magnet is brought close to the internal magnet. The voice box includes a special multi-track random access recording disk which enables the toy to emit a multiplicity of messages in a random fashion.

6 Claims, 6 Drawing Figures



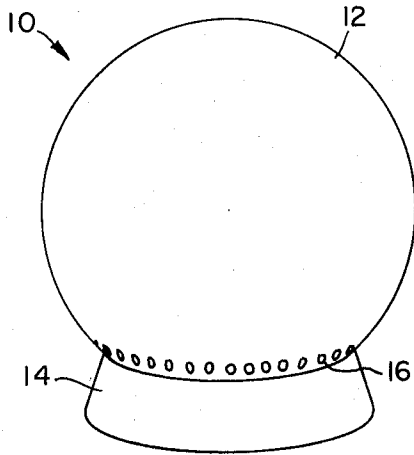


FIG. 1

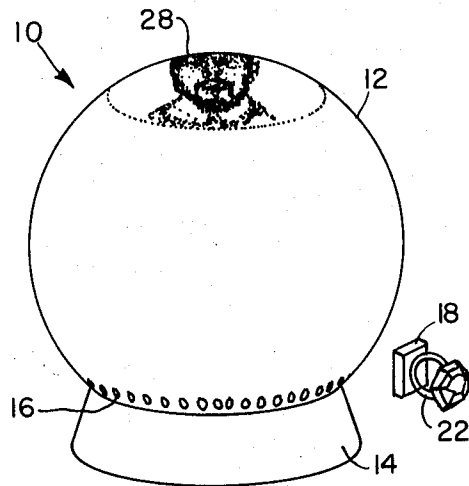


FIG. 2

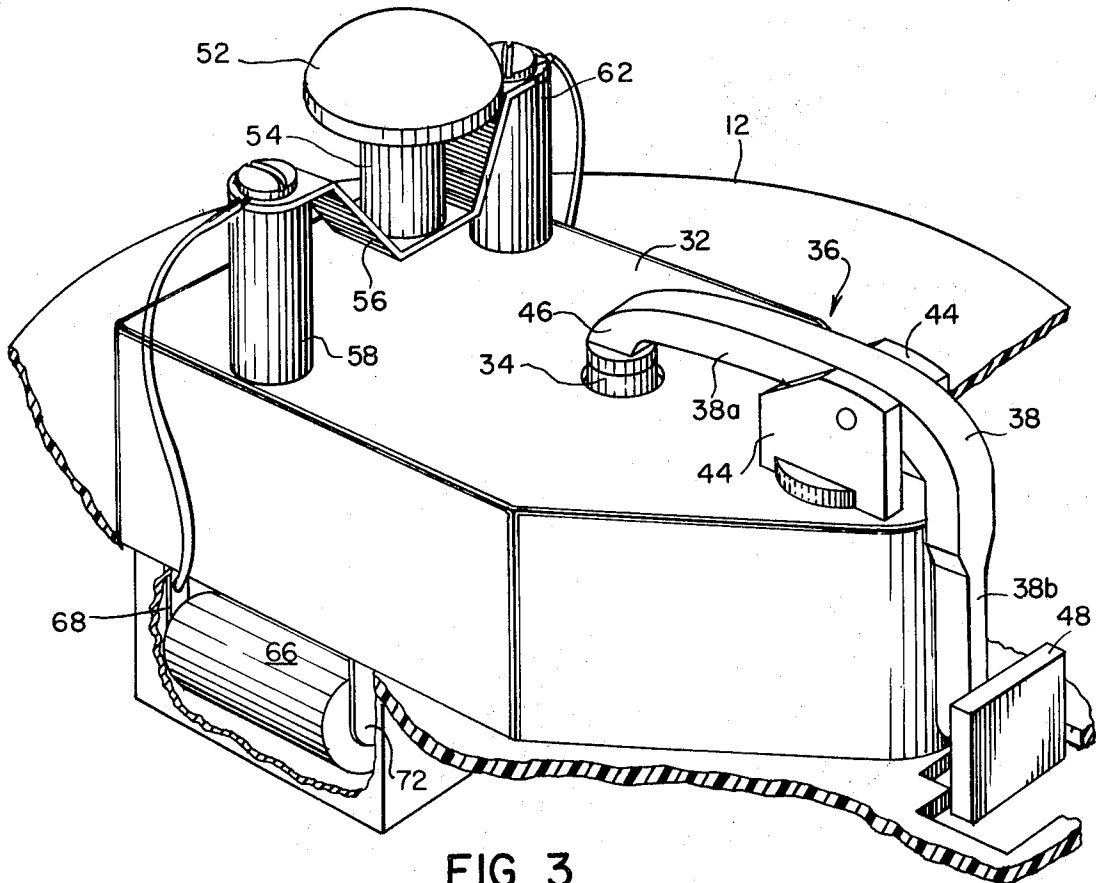


FIG. 3

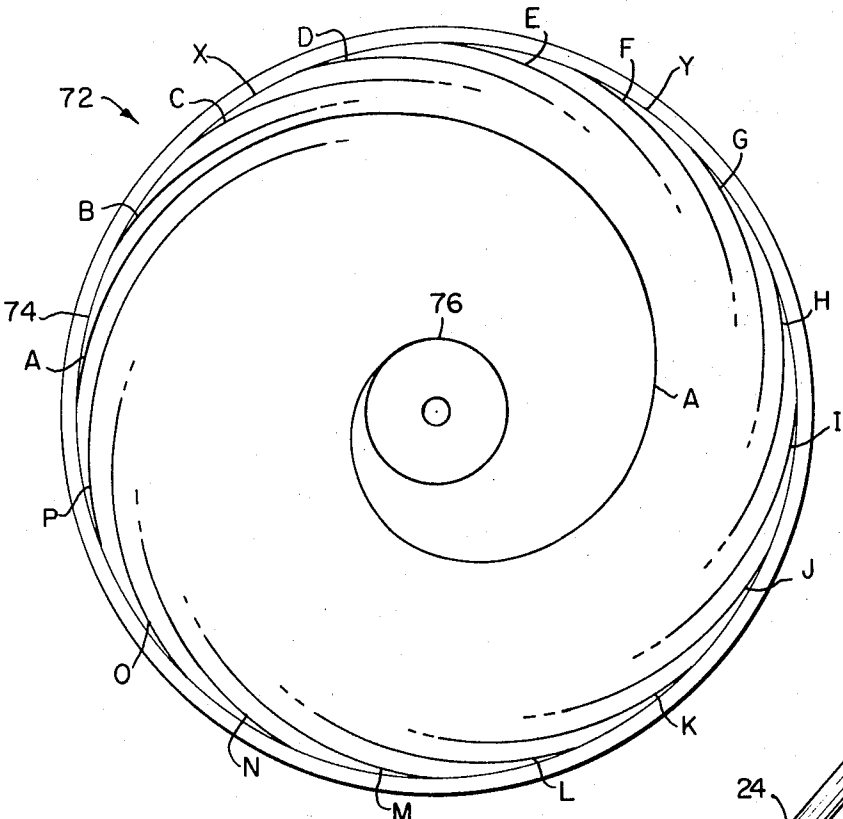


FIG. 5

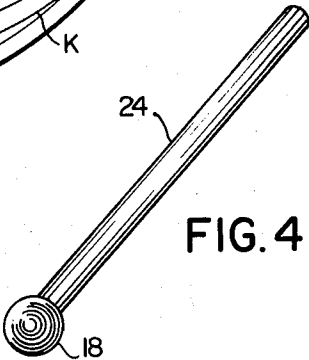


FIG. 4

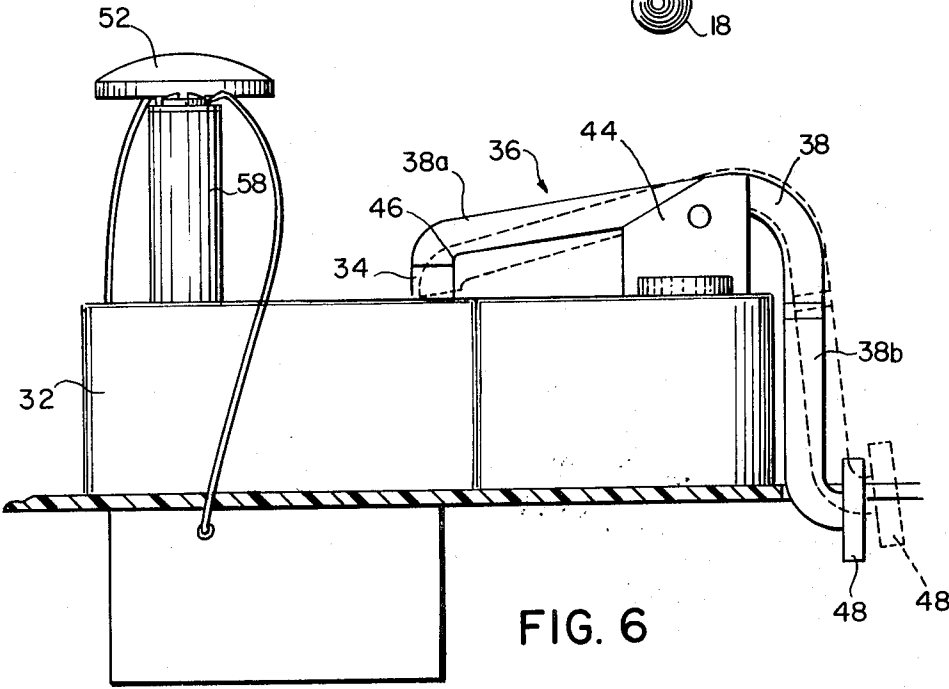


FIG. 6

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TALKING TOY

BACKGROUND OF THE INVENTION

This invention relates to a child's toy. It relates more particularly to a talking toy which voices a variety of songs or messages.

Talking toys are quite common. They come in the form of dolls, animals, and variously shaped articles. The sound is usually produced by means of a recording wire or disk which is located in a voice box mounted inside the toy. In the case of the former, the child pulls the wire out from the toy and releases it. The wire winds up on a spring-loaded spool and, in the process, the message on the wire is played back through the voice box. The recording disks are similar to phonograph records. When the voice box is actuated, the disk is rotated and a tone arm carrying a needle follows the recording groove on the disk. The vibrations picked up by the needle are coupled by the tone arm to a speaker cone which, in turn, vibrates to audibly reproduce the message on the record.

Normally, to actuate the talking toy, the user pulls on a wire as aforesaid or physically depresses a switch protruding from the toy. In each case, the child must grasp the toy and hold it while he activates it. Also, these conventional talking toys invariably play recorded songs or messages in a predetermined sequence. Consequently, after a very short time, the child knows exactly what the toy will say the next time it is activated, with the result that he quickly loses interest in the toy.

SUMMARY OF THE INVENTION

Accordingly, it is the aim of the present invention to provide a child's toy which is able to emit a variety of messages and songs in a completely random fashion.

Another object of the invention is to provide a talking toy which can be actuated without the child having to touch the toy.

Still another object of the invention is to provide a toy which provides answers randomly from a repertoire of answers to questions asked of it.

Other objects will in part be obvious and will in part appear hereinafter.

The invention accordingly comprises the features of construction, combination of elements and arrangements of parts which will be exemplified in the construction hereinafter set forth, and the scope of the invention will be indicated in the claims.

The present invention may assume a variety of forms. However, for purposes of illustration, we will describe it in the form of a crystal ball of the type which is commonly associated with a fortune teller.

The globular portion of the crystal ball is made of translucent plastic and preferably colored an opaque white. Desirably, also, a face is formed in a portion of the wall of the crystal ball. The picture may be embossed directly on the wall or it may be carried on a piece of translucent paper or plastic adhered to the wall.

The crystal ball also contains a battery-operated voice box which, except for its recording disk, is more or less of conventional construction. The voice box has the usual actuating pushbutton switch. In the present instance, however, the button is depressed by a trigger bearing a magnet which is positioned just inside the wall of the crystal ball. Also a lamp is positioned inside

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the ball, adjacent the picture the lamp is electrically connected with the voice box so that they both go on together when the voice box switch is actuated.

The triggering device for the toy is a second magnet which is concealed in a ring or wand carried by the child. The child moves his hands over the surface of the crystal ball in the well-known manner of sorcerers, witches and fortune tellers. When the ring magnet is brought opposite the internal magnetic trigger, the trigger is moved by the force created by the two magnetic fields, thereby depressing the voice box switch. This causes the light inside the crystal ball to be illuminated momentarily so that the picture in the wall of the crystal ball becomes visible. In the present example, the picture is a likeness of a swami, gypsy, etc. The voice box then plays a recorded message. In the present instance, the message is in the form of an answer to a question asked by the child.

The voice box will play the recorded message for a predetermined time after which it will automatically turn itself off to ready the toy for the next question. When the child again activates the toy, the crystal ball will again become illuminated and voice another message. The same procedure can be followed again and again so that the crystal ball answers any number of questions asked by the child.

It is an important feature of the present invention that the recorded messages are not emitted by the toy in any particular sequence. This is because of the special design of the recording disk or record inside the voice box.

More particularly, instead of having a single spiral groove that is found in the usual phonograph record, the present recording disk contains a multiplicity of spiral grooves, each of which carries a different recorded message. The grooves are generally parallel to one another. However, all of the grooves originate at a single circular groove adjacent the periphery of the record and all terminate at a small circular groove near the center of the record.

When the voice box is inactive, its tone arm is situated in the inner circular groove. When the voice box is actuated, the record begins to rotate. Also the tone arm is picked and swung to the edge of the record and then lowered so that the tone arm needle is positioned in the outer circular groove. As soon as the needle encounters a spiral track branching off from the circular one, it follows that track. Consequently, the voice box plays the recorded message contained on that track.

When the tone arm needle reaches the end of that track, the voice box is automatically turned off so that the disk stops, although it may continue to rotate briefly due to its inertia.

The next time the child activates the toy, the recording needle is positioned at a different point on the outer circular groove. Therefore it first encounters a different spiral track which it follows with the result that the voice box plays a different recorded message. Since the voice box is a relatively inexpensive item, the movements of its various parts are not precise. Consequently, the angular position of the record at the instant the tone arm needle is deposited on the outer circular groove is more or less random so that one cannot be sure which spiral track the tone arm needle will first encounter and follow when the toy is next activated. It is even remotely possible that the needle will follow the same track in two successive cycles. The point is that

the child will never be sure which answer will be forthcoming from the crystal ball when a question is asked. This, of course, makes the toy more exciting to a child and his friends so that it holds the children's interest for a relatively long period of time. Naturally, the toy can be designed to play different songs in a random way and, in fact, the random access, multigroove recording disk has application in many other apparatus for producing random messages of one type or another, advertising slogans, for example.

BRIEF DESCRIPTION OF THE DRAWINGS

For a fuller understanding of the nature and objects of the invention, reference should be had to the following detailed description taken in connection with the accompanying drawings, in which:

FIG. 1 is a perspective view of a toy in the form of a crystal ball embodying the principles of this invention, with the crystal ball shown in its inactive condition;

FIG. 2 is a similar view showing the crystal ball in its active condition;

FIG. 3 is a perspective view on a larger scale and with parts broken away showing the interior of the crystal ball in greater detail;

FIG. 4 is a perspective on a small scale showing another device for triggering the FIG. 1 toy; and

FIG. 5 is a diagrammatic view of the random access, multigroove record which is used in the FIG. 1 toy.

FIG. 6 is a side elevational view showing the talking unit inside the crystal ball.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to FIG. 1 of the drawing, the toy is illustrated herein as a crystal ball indicated generally at 10. The crystal ball includes the familiar globular top portion 12 which is made of a suitable impact-resistant plastic. Desirably, it is translucent and colored an opaque white. The crystal ball also includes a generally frustonical stand 14 which is attached to and supports the globe 12. Stand 14 may also be made of plastic, or of metal, and is desirably a different color from globe 12, e.g. black or dark blue.

The crystal ball contains a battery-operated voice box, with a special random access, multigroove recording disk to be described later so that when activated, the crystal ball emits a recorded message randomly selected from a repertoire of such messages. The sounds from the crystal ball emerge from a series of ports 16 distributed around the bottom of the globe 12.

Turning now to FIG. 2, the crystal ball is activated by means of a magnet 18 concealed in an object carried by the child such as a ring 22, or a wand 24 such as shown in FIG. 4. When the magnet 18 is placed against the crystal ball, the globe 12 is illuminated momentarily so that a face 28 or other such image appears in the globe. Then the crystal ball emits an audible message from its repertoire of messages. As soon as the recorded message is completed, the crystal ball is automatically turned off. When the toy is next activated by magnet 18, the globe 12 is again illuminated and the crystal ball emits a different recorded message. Of course, it is not necessary that both the ring and globe contain magnets. One of the magnets may be substituted for by a piece of soft iron or other ferromagnetic material.

Turning now to FIG. 3, the globe 12 contains a voice box or talking unit 32 which, except for the recording disk therein, is quite conventional. A talking unit of this type is presently sold by Shigoto Industries, Ltd., 350 Fifth Avenue, New York, N. Y. Suffice it to say that the talking unit includes the usual turntable which is rotated by a battery-powered motor mounted inside the talking unit. The talking unit also includes a tone arm which carries a recording needle arranged to play the record positioned on the turntable. The message on the record is amplified by means of a speaker cone which is acoustically coupled to the tone arm so that the vibrations picked up from the record by the needle are amplified by the speaker cone and are therefore quite audible.

The talking unit 32 is activated when a switch button 34 therein is activated, the turntable commences to rotate and the tone arm which is normally resting at the center of the record, is picked up and moved to the periphery of the record so that the needle is positioned at the beginning of the record groove. The needle follows the groove to its end whereupon the unit automatically shuts off. When the switch button 34 is again depressed, the unit goes through another such cycle. This operation is quite ordinary and does not form any part of the present invention.

In the present instance, the conventional talking unit 32 is outfitted with a special magnetic trigger shown generally at 36. The trigger includes a generally L-shaped lever arm 38, one leg 38a of which is pivotally connected to a pair of ears 44 secured to the top of talking unit 32 adjacent its switch button 34. Lever arm 38a terminates in a boss 46 which directly overlies the button. The other arm 38b of lever 38 extends down between the talking unit 32 and the wall of globe 12. A magnet 48 is secured to lever arm 38b, with the magnet being positioned quite close to the globe 12 wall.

The trigger 36 depresses switch 34 when the magnet 48 is pulled toward the globe 12 wall. This occurs when the external magnet 18 (FIG. 1) is positioned against the globe directly opposite magnet 48. Thus, when the child wearing the ring 22 moves his hand so that the magnet 18 is directly opposite the internal magnet 48, the unit is triggered so that the crystal ball gives its answer to the question previously asked by the child.

Still referring to FIG. 3, the translucent globe 12 is illuminated by means of a lamp 52 mounted on talking unit 32. The lamp is screwed into a socket 54 supported by a strap 56 suspended between a pair of pedestals 58 and 62 secured to the top of the talking unit. The lamp socket 54 is connected electrically by way of the switch button 34 so that the lamp is turned on when the switch is depressed. Power for the lamp 52 may be drawn from the battery inside the talking unit 32. Alternatively, it may be provided by an additional battery 66 supported by spring-like terminals 68 and 72 mounted inside the crystal ball.

Referring now to FIG. 5, talking unit 32 uses a special disk or record shown generally at 72. Instead of the usual single spiral groove, record 72 contains a multiplicity, herein sixteen, separate spiral record grooves or tracks, which are labeled A through P. Tracks A through P are more or less parallel, although not so in a strict mathematical sense. The 16 grooves all carry separate messages so that the talking unit 32 plays a different message depending upon which record track is

in use during each particular cycle of operation of the talking unit.

As seen from FIG. 5, all of the record tracks A through P originate from common circular groove 74 near the edge of the record with the beginnings of the tracks being evenly distributed about the groove 74. Likewise, the tracks all terminate at a single small groove 76 near the center of the record. In the drawing figure, the spiral tracks have been shortened and their pitch greatly increased for ease of illustration. Actually, each track makes several revolutions about the disk so that the message recorded thereon can be of sufficient length to interest a child.

Each time the talking unit 32 is activated, the record is rotated and the tone arm is moved to the edge of the record so that the needle is placed in the outer groove 74. When the needle encounters the first spiral track, it follows that track so that the unit 32 plays the message on that track. For example, if the needle is placed at point X on groove 74, it will enter track D. When the needle reaches the end of that track, the tone arm, as usual, activates a switch shutting the unit off. The next time the voice unit 32 is activated, the needle will undoubtedly be deposited at a different point on groove 74, say, point Y. In that case, the needle will first encounter track G and accordingly the unit will play back the message on that track.

The precise point where the needle is placed in groove 74 depends on many factors, several of which vary because of the imprecise operating characteristics of the inexpensive voice unit. These factors include motor speed variations, the position of the needle when the cycle starts, variations in tone arm movement, disk inertia, etc. This being the case, the placement of the needle in groove 74 occurs more or less in a random fashion so that the messages voiced by the talking unit also occur randomly.

It will be seen from the foregoing then that the present toy can easily be activated by a child without the child having to touch the toy. Furthermore, the toy can take a variety of forms to achieve the desired result. For example, instead of a crystal ball, the toy may be in the form of a figure of a genie or magician, with the toy being activated by placing a wand adjacent the figure's head.

Furthermore, the fact that the toy emits a variety of different messages or songs heightens the child's interest. Aside from this, the random access, multi-track record incorporated into the toy can be used in other applications. For example, a record such as this can be used to play advertising slogans randomly or to play songs from a repertoire of songs in a random manner.

It will thus be seen that the objects set forth above, among those made apparent from the preceding description, are efficiently attained and, since certain changes may be made in the above construction without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

It will also be understood that the following claims are intended to cover the generic and specific features of the invention herein described.

I claim:

1. An electrically powered toy comprising

A. a housing,

B. a talking unit mounted inside the housing, said unit including

1. a switch for turning on the talking unit,

2. a turntable,

3. means for rotating the turntable,

4. a recording disk mounted on the turntable, said disk having a circular groove and a plurality of generally parallel spiral recording grooves which connect at one end to different points on the circular groove,

5. a tone arm having a needle in one end arranged to follow any groove on the disk, and

6. means for randomly positioning the tone arm needle in the circular groove so that when the turntable rotates, the needle follows the circular groove to the first encountered spiral groove and then follows said spiral groove to its end,

C. a magnetic trigger positioned adjacent the switch and movable between a first position wherein it actuates the switch and a second position wherein it does not actuate the switch, said actuator including magnetic means positioned just inside the housing wall, and

D. second magnetic means arranged to be positioned on the outside of the housing opposite the trigger so that the magnetic field developed by the two magnetic means moves the trigger thereby actuating the switch and turning on the talking unit.

2. The toy defined in claim 1 wherein the housing is in the shape of a crystal ball.

3. The toy defined in claim 1

A. wherein the housing is made of a light-transmitting material, and

B. further including a lamp mounted inside the housing, positioned to illuminate the light-transmitting material, and connected electrically through the switch so that the lamp goes on when the switch is actuated.

4. The toy defined in claim 1 wherein the single circular groove is located near the edge of the disk.

5. The toy defined in claim 1 wherein the single circular groove is located near the center of the disk.

6. An electrically powered toy comprising

A. a housing, and

B. a talking unit mounted inside the housing, said unit including,

1. a switch for turning on the talking unit,

2. a turntable,

3. means for rotating the turntable,

4. a playback disk mounted on the turntable, said disk having a circular groove and a plurality of generally parallel spiral recording grooves which connect at one end to different points on the circular groove,

5. a tone arm having a needle in one end arranged to follow any groove on the disk, and

6. the imprecise movements of tone arm and moving means contributing to randomly position the tone arm needle in the circular groove so that when the turntable rotates, the needle follows the circular groove to the first encountered spiral groove and then follows said spiral groove to its end.

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