Feb. 12, 1952 W. M. HUTH 2,585,467

ARTICULATED DANCING TOY

Filed Feb. 23, 1949 2 SHEETS—SHEET 1

FIG. 1

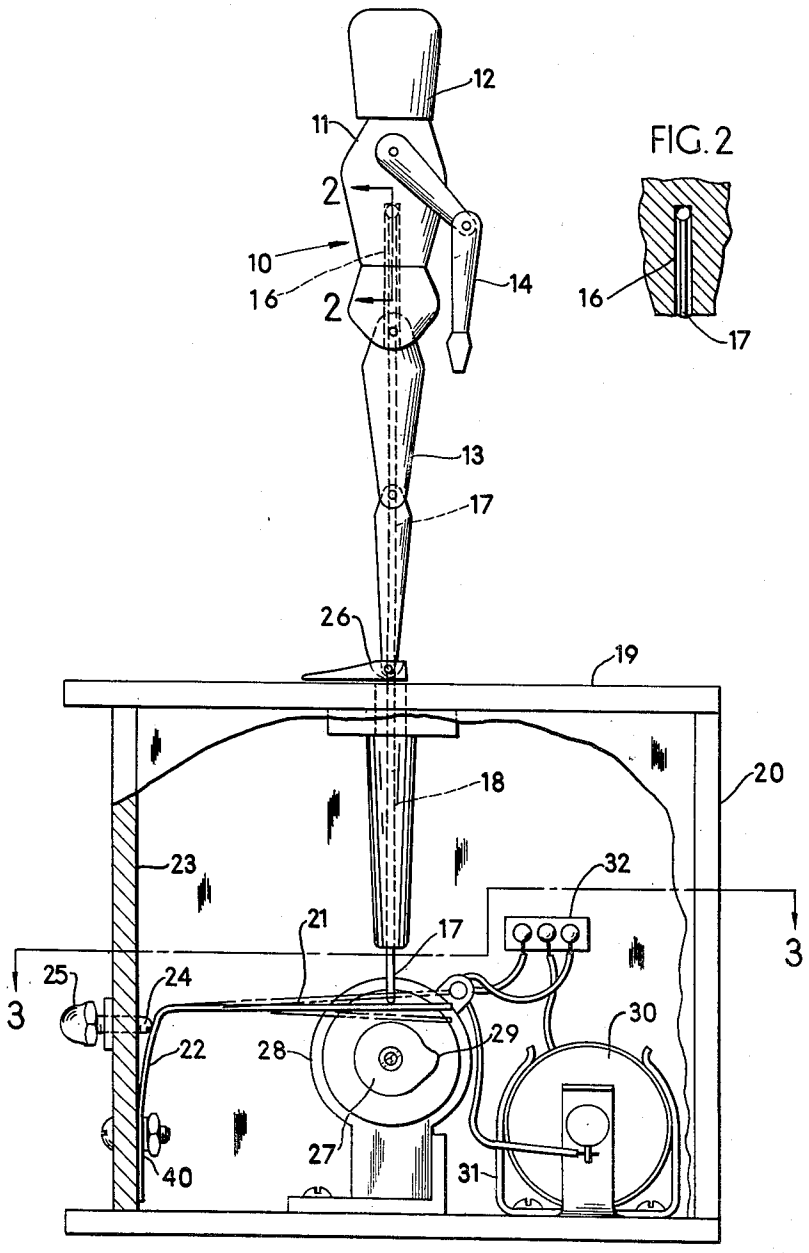


FIG. 2

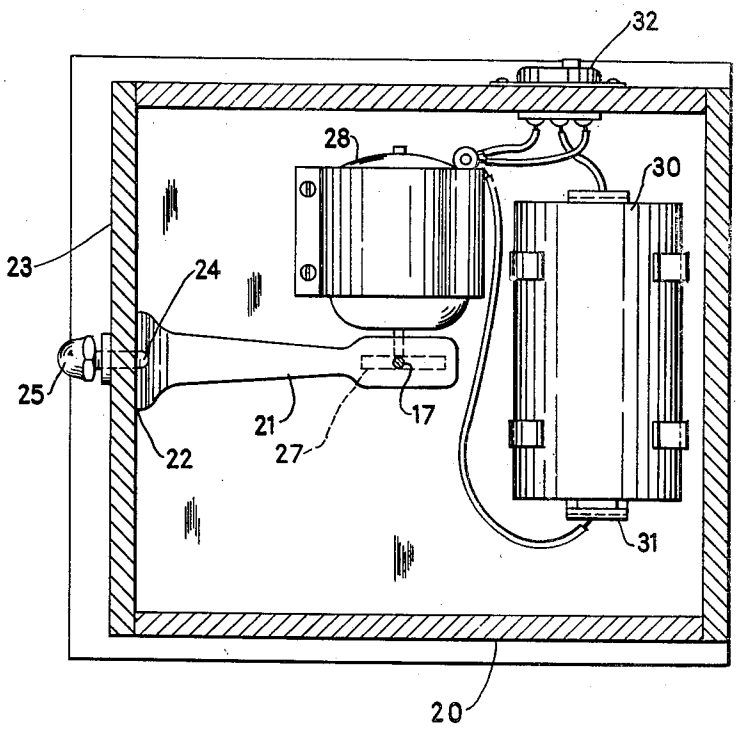
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FIG. 3



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ARTICULATED DANCING TOY

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4 Claims. (Cl. 46—138)

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This invention relates to an articulated dancing toy for amusement.

One object of the present invention is to provide a toy of the character described, including improved means by which an articulated figure will simulate life-like dancing movements which though rhythmic are substantially unpredictable.

Another object of the invention is to provide a toy of the character described, including improved means for varying the characteristics or tempo of said dancing movements.

Other objects of the invention will be manifest from the following brief description and the accompanying drawings.

Of the accompanying drawings:

Figure 1 is a side elevation, partly broken away, illustrating an improved dancing toy embodying the features of the invention.

Figure 2 is a fragmentary enlarged cross-section, taken substantially on the line 2—2 of Figure 1.

Figure 3 is a horizontal cross-section taken substantially on the line 3—3 of Figure 1.

Referring to the drawings, the numeral 10 designates an articulated figure of a man, including a body 11, a head 12, and pairs of suitably jointed legs 13 and arms 14 pivoted onto the body. The figure may be attractively decorated in any suitable manner.

For supporting the figure 10 in upright position, an elongated recess 16 extends vertically from the underside of body 11 for relatively loose reception of the upper end portion of a rod 17, which is vertically reciprocally received in an elongated guide passage 18 through a top panel 19 of a box or casing 20, and the lower end of the rod rests on a top face of an elongated flat spring member 21 extending freely in horizontal direction from a point of support at one side of said casing.

The spring member 21 is secured at said point of support by having an integral angular extension 22 thereof bolted to panel 23 at a point 24 substantially below a horizontal plane of the member, so that by adjustment of a screw 24 threaded through panel 23 and into yielding engagement with the extension 22, the angular relation of the member with respect to the horizontal is easily adjusted for purposes to be described later. A knob 25 provided at the outer end of screw 24 facilitates adjustment of the angle of member 21 from a point exteriorly of the box.

The top panel of the box 19, if not the complete box, may be of wood and provides a flat topped

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platform or sounding board, upon which the figure may be caused to dance by vertical reciprocation of the rod 17, the position of the figure being such that the toe portions of the pivoted feet 26 will engage the platform in the manner of a tap or clog dancer, and said reciprocation of the rod being accomplished by rapid vibratory movement of spring member 21. To provide this vibratory motion to member 21 a cam 27, rapidly rotated by a battery operated motor 28, has a projecting cam portion 29 intermittently engageable with the underside of the spring member, toward the freely extending end thereof. The arrangement is such that such intermittent engagement of the cam portion 29 with the spring, which need not always be with each revolution of the cam, is effective to provide a varying vibratory action to the spring and a correspondingly varying vertical reciprocation to the rod 17. Rapid bouncing reciprocation of the rod with the figure thereon is effective to cause the figure to fling its arms and legs in varying directions while the feet 26 produce a rhythmic tapping sound on the platform 19.

Power to motor 28 is provided by battery means 30, releasably secured in a suitable contact bracket 31 mounted in the bottom of the casing, the battery means being wired to the motor 28 through a suitable two-way switch 32 of known type, manually operable to run the motor in forward or reverse. By providing a non-symmetrical cam projection 29, reversal of the motor will be effective to change the tempo or characteristics of the dancing movements of Figure 10. This variation in action of the toy is in addition to the changes which are made possible by adjustment of screw 24 to vary the vibratory movement of the spring.

In use of the toy for amusement it is operated by closing the switch 32 to run motor 28 in one direction or the other. Resulting rotational movement of the cam portion 29 against spring 21 thereby vibrates the spring member vertically about a point at the inner end thereof, as indicated in full and chain-dotted lines in Figure 1. As previously described, vibration of spring member 21 is effective to reciprocate or bounce the rod 17 in a rhythmic though unpredictable manner, and thereby provides corresponding vertical movement of the figure, which causes the jointed arms and legs to move about and the pivoted feet to tap on the platform, substantially in the manner of a tap or clog dancer. Many variations of the dancing movements are obtainable by changing the direction of opera-

tion of motor 28, or by adjusting the screw 24 to vary the vibration of spring member 21, or by doing both of these things.

Modifications of the invention may be resorted to without departing from the spirit thereof or the scope of the appended claims.

What is claimed is:

1. An animated toy comprising a jointed figure, a platform having a guide passage therethrough, means for supporting said platform in horizontal position, a flat spring element mounted on a relatively fixed portion of said supporting means beneath the level of said platform to extend freely in a horizontal plane, a rod vertically received through said passage in the platform and supporting said jointed figure at the upper end thereof, the lower end of said rod engaging the top face of said flat spring element, and the rod and jointed figure thereby being gravitationally supported by said flat spring element adjacent said free end, a rotary member having thereon a cam portion intermittently engageable with the bottom face of said flat spring element upon rotation of the member, means for rotating said rotary member for intermittent engagement of said cam portion thereof with said flat spring element to vibrate the same and thereby through reciprocating vertical movement of said rod to cause articulation of said jointed figure, said means for rotating including an electric motor, dry-cell battery means, an electrical circuit between said motor and said battery means, and contact means in said circuit selectively operable to open and close the same.

2. An animated toy comprising a jointed figure, a platform having a guide passage therethrough, means for supporting said platform in horizontal position, a flat spring element mounted on a relatively fixed portion of said supporting means beneath the level of said platform to extend freely in horizontal direction, a rod vertically received through said passage in the platform and supporting said jointed figure at the upper end thereof, the lower end of said rod engaging said flat spring element, and the rod and jointed figure thereby being gravitationally supported by said flat spring element adjacent said free end, a rotary member having a portion intermittently engageable with said flat spring element upon rotation of the member, means for rotating said rotary member for intermittent engagement of said portion thereof with said flat spring element to vibrate the same and thereby through reciprocating vertical movement of said rod to cause articulation of said jointed figure, means being provided for manual adjustment of said element to vary the vibratory movement thereof.

3. An articulated figure toy, comprising a casing including a horizontal platform top having a guide aperture therethrough, a flat spring mounted to a relatively fixed portion of said casing to extend in horizontal direction with the free end portion thereof in vertical alignment with said guide aperture, a rod vertically slidably received through said guide aperture and being gravitationally supported at its lower end by the free end portion of said spring, a cam rotatably mounted in said casing to have a projection rotated against the underside of said spring to vibrate the same vertically and thereby to vibrate said rod vertically, electrical means for rotating said cam, a figure including a body and jointed appendages thereon, said body being gravitationally supported on the upper end of said rod with end portions of one or more of the appendages engageable with said platform, means manually operable exteriorly of said casing for varying the angularity of said spring from the horizontal and thereby to vary the degree of vibration thereof.

4. A dancing figure toy, comprising a support including a horizontal platform having a guide portion, a flat spring mounted on a relatively fixed portion of said supporting means beneath said platform to extend freely in horizontal direction with the free end portion thereof in alignment with said guide portion, a rod vertically slidably received in said guide portion and being gravitationally supported at its lower end by the free end portion of said spring, an electric motor having a driven shaft, cam means on said shaft to be rotatable thereby to vibrate said spring vertically and thereby to vibrate said rod vertically, a jointed figure including a body and appendages thereon, said body being gravitationally supported on the upper end of said rod, battery means to operate said motor, switch means, electrical connections between said switch, battery means, and motor for operating the motor, said switch and electrical connections including means to provide forward and reverse operation of said motor and said cam projection being non-uniform to impart different vibratory action to said spring for opposite directions of rotation of said cam.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
Re. 18,239	Yates	Oct. 27, 1931
171,216	DeForrest	Dec. 21, 1875
832,196	Husted	Oct. 2, 1906
1,187,708	Carruthers et al.	June 20, 1916
1,207,022	Green	Dec. 5, 1916
1,617,126	Kurten	Feb. 8, 1927

FOREIGN PATENTS

Number	Country	Date
16,599	Great Britain	A. D. 1893