W. H. BALCKE.

DANCING TOY FIGURE.

APPLICATION FILED NOV. 2, 1914.

1,131,895. Patented Mar. 16, 1915.

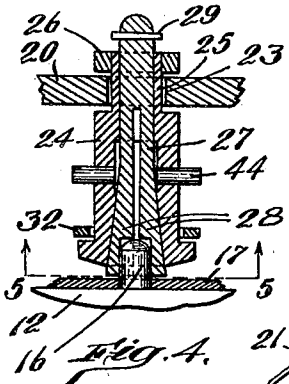


Fig. 4.

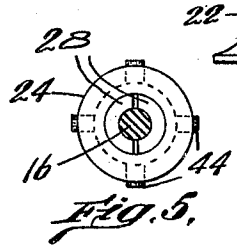


Fig. 5.

Fig. 1.

Fig. 6.

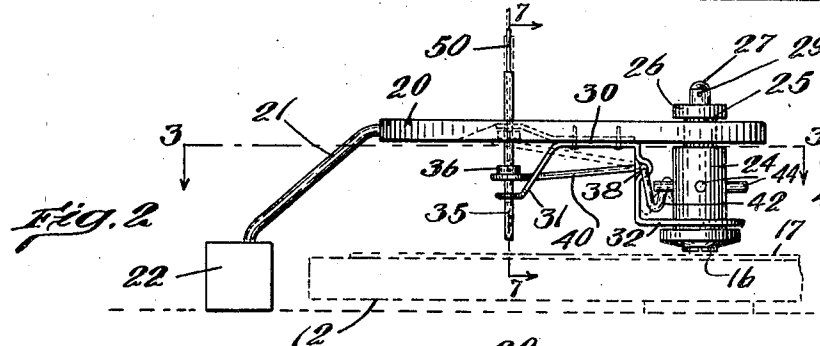


Fig. 2.

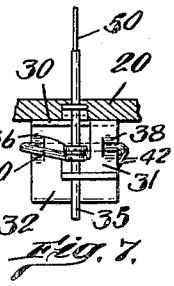


Fig. 7.

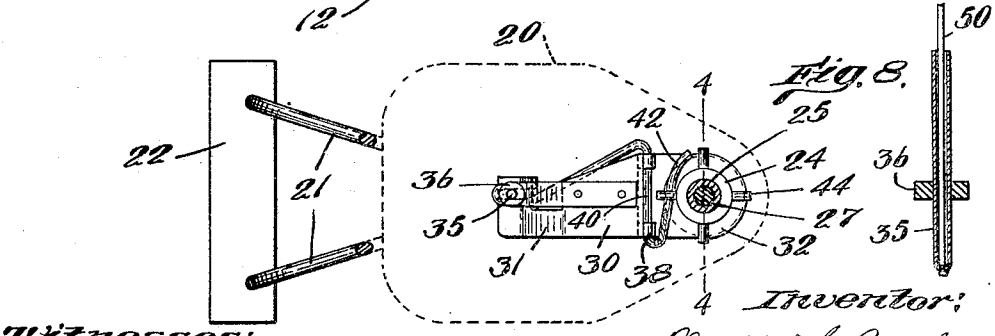


Fig. 3.

Fig. 8.

Witnesses:
H. B. Davis.
L. L. Erickson.

Inventor:
Walter H. Balcke.
by Hayes & Harriman
Attys.

UNITED STATES PATENT OFFICE.

WALTER H. BALCKE, OF WINCHESTER, MASSACHUSETTS.

DANCING TOY FIGURE.

1,131,895. Specification of Letters Patent. Patented Mar. 16, 1915.

Application filed November 2, 1914. Serial No. 869,765.

To all whom it may concern:

Be it known that I, WALTER H. BALCKE, a citizen of the United States, residing at Winchester, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Dancing Toy Figures, of which the following is a specification.

This invention relates to an amusement apparatus of that class which comprises a phonograph and a dancing toy figure.

One of the objects of this invention is to provide a mechanically operated toy figure removably arranged in positive driven relation with the record-carrier of the phonograph, so that the toy figure will be operated by the phonograph.

A further novel feature consists in providing a dancing toy figure which is driven from the record-disk centering-pin, and which is easily detached from said pin for the purpose of positioning a new record on the record-carrier.

A still further novel feature consists in providing a dancing toy figure which is arranged to be operated by the phonograph and which may be attached thereto or detached therefrom without permanently securing any part thereof to the phonograph, or disfiguring the phonograph casing with unsightly brackets or the like.

A further novel feature consists in arranging the toy figure so that it is permitted to rotate about a vertical axis as well as to reciprocate vertically, thus giving it the appearance of dancing.

Other features of the invention will be more fully described in connection with the accompanying drawing, forming a part of this specification, and will be more particularly pointed out in and by the appended claims.

In the drawing:—Figure 1 is a front elevation view of a phonograph having a mechanically operated toy, embodying my invention, operatively connected therewith. Fig. 2 is a front elevation view, on an enlarged scale, of the support and toy operating-mechanism, the toy figure being omitted in this view, and the record-disk carrier and record-disk being indicated in dotted lines. Fig. 3 is a sectional elevation on the line 3—3 of Fig. 2, showing the platform in dotted lines and showing a top elevation of the operating mechanism. Fig. 4 is a central sectional elevation of the clutch-device, said view being taken on the line 4—4 of Fig. 3. Fig. 5 is a transverse sectional view on the line 5—5 of Fig. 4. Fig. 6 is a sectional detail view. Fig. 7 is a sectional view on the line 7—7 of Fig. 2. Fig. 8 is an enlarged vertical section of the supporting-means for the toy figure.

The invention, as shown in the drawing, is applied to a phonograph which may be of any usual or suitable construction, and here shown as embodying a casing 10, a record-disk carrier 12, a sound-box arm 13, and a sound-box 14; the handle 15 being provided for the purpose of winding the spring-motor located within the casing 10 and which rotates the record-disk carrier 12; and the record-disk carrier 12 has at its center, a record-disk centering-pin 16, which projects through the central aperture in the record-disk 17, when the said record-disk is placed upon the record-carrier 12; and the casing 10 has embodied therein an amplifying horn 18, the opening of which is regulated by the doors 19.

The mechanically operated toy figure and operating-mechanism therefor includes essentially a platform, and supporting-means therefor adapted to be arranged on the phonograph, and driving-means for the toy figure arranged for connection with the centering-pin 16 of the record-carrier.

20 represents the platform which is designed to be supported in elevated position above the record-disk and disposed radially relative thereto, and said platform has secured to it, at one end, arms 21, which extend downward and the extremities of said arms are secured to a weight 22, which rests upon the phonograph casing outside of the edge of the record-disk carrier, and the other end of said platform has an aperture 23 and is arranged to be supported by means extended through said aperture and connected with the centering-pin 16.

In the aperture 23 is mounted the means for transmitting motion from the record disk centering-pin 16, and this means includes a cylindrical clutch-casing 24, having a reduced shank 25, which extends up through the aperture 23, and has secured to its upper end a collar 26, which is arranged above the platform.

Longitudinally extending throughout the length of the clutch casing 24 is a central bore tapered at the lower end. Disposed in the said bore is the jaw-member 27, having expanding jaws 28, said jaws being tapered

externally at their lower ends to a degree corresponding with the taper of the face of the bore in the clutch-casing; and said jaws are arranged to engage the centering-pin 16. The upper end of the jaw-member 27, extends beyond the top of the collar 26, and is prevented from becoming entirely detached from the clutch-casing by the pin 29.

Underneath the platform 20 is secured a bracket 30, having two oppositely extending arms 31, 32, the arm 32 serving as a bearing for the lower end of the clutch-casing and the arm 31 serving as a bearing for the lower end of a vertically disposed spindle 35. Said spindle extends up through a hole in the platform, and is free to reciprocate longitudinally in its bearings. Said spindle carries a collar 36, which is arranged thereon between the platform and the bearing-arm 31. In the bracket 30, at 38, an operating-lever 40 is journaled. Said operating lever has one end operatively engaging the collar 36, carried by the spindle 35, and its other end is bent to form a cam indenture 42, which is located adjacent the clutch-casing. The clutch-casing is provided with a plurality of laterally extended pins 44, which, as the casing revolves, successively engage said cam indenture and impart a rocking motion to the operating-lever 40, thereby to repeatedly lift the spindle 35. The spindle 35 has in its upper end-portion an axial bore, or it may be made as a tube, which is adapted to receive loosely a rod 50, which rod is connected at its upper end to the jointed toy figure 55. The toy figure is normally held with its feet in engagement with the platform, as represented in Fig. 1. The rod 50, and spindle bearing it, being in their lowermost positions, but when the spindle and rod are lifted, the toy figure is correspondingly moved until its feet are lifted slightly above the platform, but upon return movement, it resumes its normal position with its feet in engagement with the platform, but with its loosely-jointed legs assuming different angular positions, and many of such positions are such as to cause the figure to turn more or less about a vertical axis, such movement being permitted by reason of the rod 50 being loosely supported by the spindle, with a result that the figure tends to rotate, thus better simulating dancing. The lower end of the spindle is closed to provide a bearing for the lower end of the rod 50.

When the toy figure is in the position shown in Fig. 1, with the clutch-device in driven relation with the centering-pin of the record-carrier, and the phonograph is operated to revolve the record-carrier, it will be seen, that as the clutch-casing revolves, the pins 44 will successively engage the cam-indenture 42 of the operating-lever, imparting thereto a rocking motion, which in turn results in causing the operating-lever and spindle to repeatedly assume the position shown in dotted lines in Fig. 2, and impart to the jointed extremities of the toy figure, a motion simulating dancing movements; the operating-mechanism returning to its normal position by gravity after each engagement of a pin 44, with the cam-indenture.

In positioning the mechanism and its support on the phonograph, the weight rests on the casing, thus holding the outer end of the support stationary, restraining it from rotary movement, while the inner end of the platform is held in a predetermined position by the clutch-device which engages the disk centering-pin 16.

When the toy attachment is placed in position for operation, the jaws of the jaw-member are placed on the centering-pin 16, and by a downward pressure upon the collar of the clutch-casing, the jaws are forced inward, thereby to tightly engage said pin; and when it is desired to disengage the clutch-device from the centering-pin, the collar of the clutch-casing is engaged and lifted while the jaw-member is held against upward movement, thus relieving the pressure upon the jaws.

In view of the fact that the clutch-device may not engage the centering-pin in true vertical alinement, the aperture through the platform is made larger than the end-portion of the clutch-casing, thereby to admit of a slight gyratory motion of the clutch-device.

While I have shown one specific form of my invention, I do not wish to be limited thereto except for such limitations as the claims may import.

I claim:—

1. In an amusement apparatus, a phonograph, a driven record-disk carrier provided with a disk centering-pin, a dancing toy figure disposed above the record-carrier and inwardly of the periphery thereof, and means connected with said centering-pin for imparting movement to said toy figure, substantially as described.

2. In an amusement apparatus, a phonograph, a driven record-disk carrier provided with a disk centering-pin, a dancing toy figure and toy figure actuating-mechanism including means for attachment to said centering-pin for transmitting motion from said pin to said figure, substantially as described.

3. In an amusement apparatus, a phonograph, a casing, a driven record-disk carrier rotatable abreast of the top of said casing and provided with a disk centering-pin, a dancing toy figure, means attachable to said pin for transmitting motion to said toy figure, and a dancing platform in range for engagement by said figure, and provided with weight means engaging said casing to

support said platform, said platform engaging the said means attachable to the centering-pin to hold said platform in position, substantially as described.

4. In an amusement apparatus, a phonograph, a casing, a driven record-disk carrier provided with a disk centering-pin, dancing toy mechanism including a toy figure, means for transmitting motion from said centering-pin to said figure, and a platform supported from one end on said casing and radially overhanging said record-disk carrier in striking range with respect to said toy figure and having its remaining end centered coincident with the axis of said centering-pin, substantially as described.

5. In an amusement apparatus, a phonograph, a casing, a driven record-disk carrier provided with a disk centering-pin, a support mounted on said casing, a dancing toy figure, mechanism carried by said support for imparting motion to said toy figure, and means clutched to said centering-pin for actuating said mechanism, substantially as described.

6. In an amusement apparatus, a phonograph, a casing, a driven record-disk carrier provided with a disk centering-pin, a support resting on said casing, a dancing toy figure, toy figure operating-mechanism carried by said support, and means clutched to said centering-pin for actuating said toy operating-mechanism and co-acting with said support to retain the same in a predetermined position, substantially as described.

7. In an amusement apparatus, a phonograph, a casing, a driven record-disk carrier provided with a disk centering-pin, a dancing toy figure and operating-mechanism therefor including a platform, a clutch-device comprising a clutch-casing revolubly connected with said platform and having a longitudinally extending tapered bore, jaws mounted in said bore and actuated by engagement with the tapered surface thereof for driving connection with said centering-pin, and means carried by said clutch-casing for actuating said operating-mechanism, substantially as described.

8. In an amusement apparatus, a phonograph, a casing, a driven record-disk carrier provided with a disk centering-pin, a support resting on said casing and overhanging said disk-carrier, a bracket secured to said support, a reciprocable spindle journaled in said support and bracket, a dancing toy figure carried by said spindle, a lever journaled in said bracket and having one end operatively engaging said spindle, a clutch-device loosely mounted in said support for driving connection with said centering-pin, and an element on said clutch-device for engaging the remaining end of said lever to actuate the latter, substantially as described.

9. In an amusement apparatus, a loosely-jointed toy figure arranged above and for engagement with a platform, a rod to which it is attached, a vertically reciprocating spindle bearing said rod, and means to move said spindle, said rod being loosely supported by the spindle, permitting movement thereof about a vertical axis, substantially as described.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

WALTER H. BALCKE.

Witnesses:
H. B. DAVIS,
B. J. NOYES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."