D. ZAIDEN.

TOY.

APPLICATION FILED AUG. 23, 1919.

1,383,780.

Patented July 5, 1921.

2 SHEETS—SHEET 1.

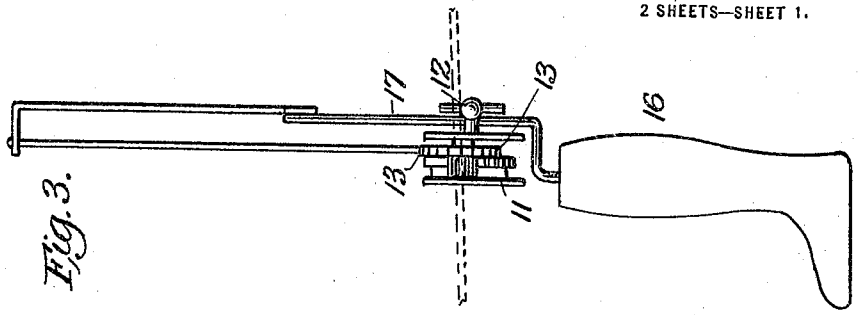


Fig. 3.

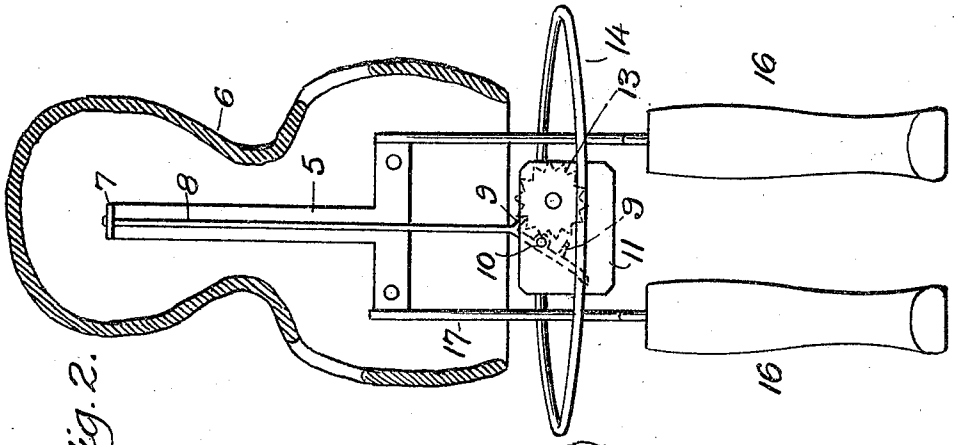


Fig. 2.

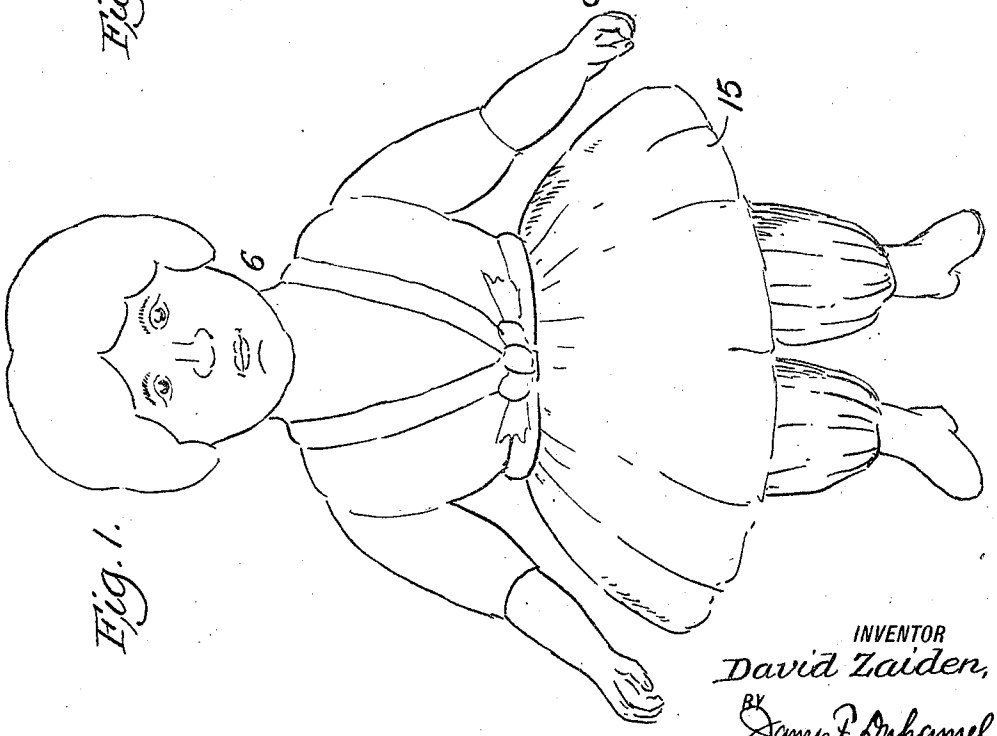


Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 4.

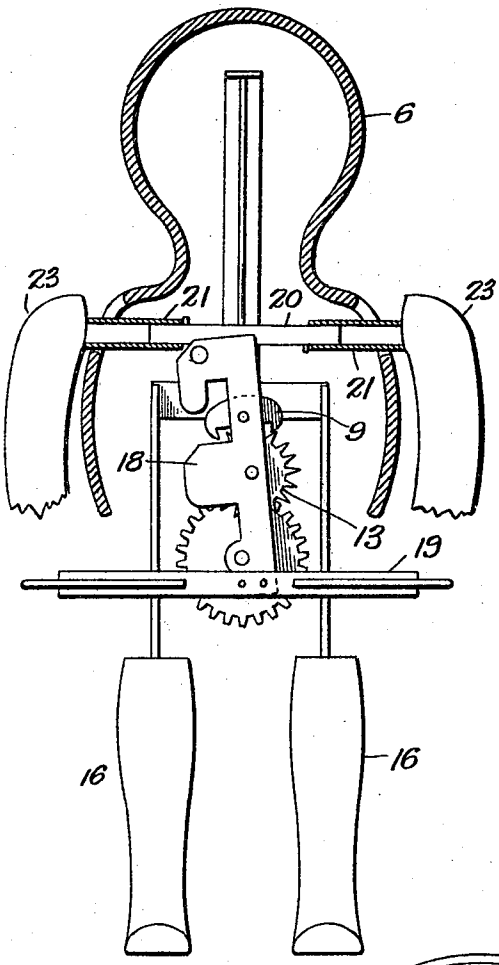


Fig. 5.

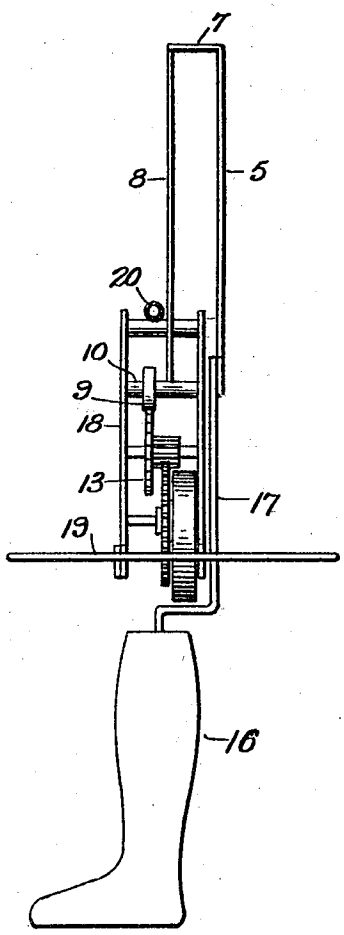
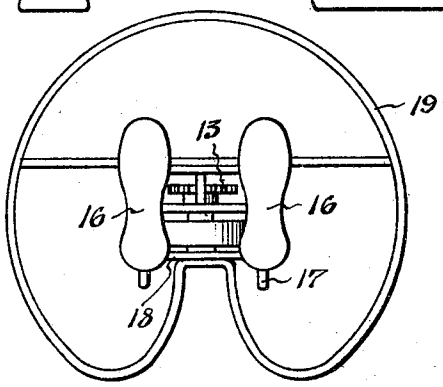


Fig. 6.



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UNITED STATES PATENT OFFICE.

DAVID ZAIDEN, OF NEW YORK, N. Y.

TOY.

1,383,780. Specification of Letters Patent. Patented July 5, 1921.

Application filed August 23, 1919. Serial No. 319,470.

To all whom it may concern:

Be it known that I, DAVID ZAIDEN, a citizen of Russia, residing at New York, New York county, and New York State, have invented certain new and useful Improvements in Toys, of which the following is a specification.

This invention relates to toys and more especially to dolls or figures of animals which are given a movement to simulate dancing and its object is to provide the body of the object with a vibrating means to agitate the body which is preferably carried by flexible supports and the impetus of the vibratory means not only agitates the limbs and clothing of the figure but causes the feet to travel over a plane surface, all of which will be more fully described in the following specification, set forth in the claims and illustrated in the accompanying drawings, wherein:

Figure 1 is a front view of a doll to which the invention is applied.

Fig. 2 is a sectional view through the body of the doll and showing the mechanism from the front.

Fig. 3 is a side view of the agitating mechanism.

Figs. 4 and 5 are views similar to the above showing means for agitating the limbs.

Fig. 6 is a bottom view of the doll, looking upward, and showing the feet, motor and skirt supporting frame.

The means for imparting motion to the doll and its skirt shown in the drawings is substantially a pendulum carried by a bracket 5 secured to the back of the interior of the figure 6, hung from the arm 7 and consisting of the rod 8 which is preferably flexible and has at its lower end the escapement dogs 9 and is pivoted at 10 in the box 11. The latter carries an ordinary spring clock mechanism with a winding key 12 at its rear side and the spring and train of wheels drive an escapement wheel 13 which is engaged by the dogs at the lower end of the rod 8. It is evident, therefore, that as the spring of the clock work is rotating the escapement an impetus is given the box and it is swayed laterally on the flexible rod and a certain amount of vibration is imparted to the body 6 by the jerky action of the dogs as they play in the teeth of said wheel.

The box 11 carries at its rear side the ends of a hoop 14 which supports the skirt on the figure and the movement of the box and the hoop impart an agitation to the skirt and gives a dancing effect to the doll. The legs 16 are carried at the ends of the flexible rods 17 secured to the bracket 5 and consequently to the body 6, and as the vibration is set up in the body a similar movement is given the legs through the flexible rods 17 which are offset as shown at Fig. 3 to place the legs under the center of gravity and the alternate lateral movement of the pendulum is imparted to the legs and causes them to rise and fall and the figure will gradually and slowly move over a plane surface and change its location as the pendulum swings.

In case that it is found desirable to also agitate the arms of the toy, a clock work such as shown in Figs. 4 and 5 with an elongated frame 18 is employed and which carries at its lower end the frame 19, for agitating the skirt while at its upper end a horizontal tube 20 is secured which carries on its outer ends the tubes 21 and inside of all these tubes is a spiral spring 22 that is connected at each end to a limb 23, which the tension of the spring causes to impinge on the end of tube 21.

With this arrangement of the pendulum or clock work, the skirt and arms are moved and the whole figure given the semblance of a dancing movement.

This invention resides, however, in the pendulum movement that agitates the skirt and alternately raises each foot and it is obvious that the parts may be otherwise arranged and modified without departing from the essential features above described or from the scope of the appended claims.

What I claim is:—

1. In a toy, the combination of a figure mounted on flexible legs, a vibratory motor carried within and supported by the figure, and means operated by the motor and adapted to agitate the figure.

2. In a toy, the combination of a figure flexibly mounted, an intermittently actuating motor carried by the figure on its inside, and vibratory means operated by the motor and adapted to agitate the figure.

3. In a toy, the combination of a figure having a skirt and arms, flexible legs, supporting the figure, a pendulum adapted to agitate the arms and skirt, and means for actuating the pendulum.

4. In a toy, the combination of a figure mounted on flexible supports, movable arms,

a spring motor supported within the figure and connected with the arms, a flexible rod carrying the motor, and vibratory means operated by the motor and adapted to agitate the figure and move the arms.

5. In a toy, the combination of a hollow figure having a skirt, laterally moving arms, flexible legs supporting the figure, a flexible rod suspended in the figure, a motor carried at the lower end of the rod, and vibratory means in the motor when operating and adapted to reciprocate the arms and agitate the figure on its legs.

6. In a toy, the combination of a hollow figure mounted on flexible legs and having a skirt, arms at the side of the figure, a flexible rod hung in the figure, dogs at the lower end of the rod, a box pivoted at the end of the rod, an escapement wheel in the box and engaged by the dogs, a hoop carried by the box to support the skirt, and a spring clock work in the box to actuate the escapement wheel.

7. In a toy, the combination with a hollow figure having a skirt, a flexible rod secured in the figure, escapement dogs at the end of the rod, a box with an escapement wheel, a frame at the lower end of the box to support the skirt, a cross tube at the upper end of the box, arms for the figure at the end of the tube, a spring connecting the arms, and clockwork in the box to operate the escapement wheel.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses, this 12th day of August, 1919.

DAVID ZAIDEN.

Witnesses:
DAVID SNYDER,
JAMES F. DUHAMEL.