Dec. 10, 1940. M. M. JANAS 2,224,456

TOY DOLL

Filed July 24, 1939

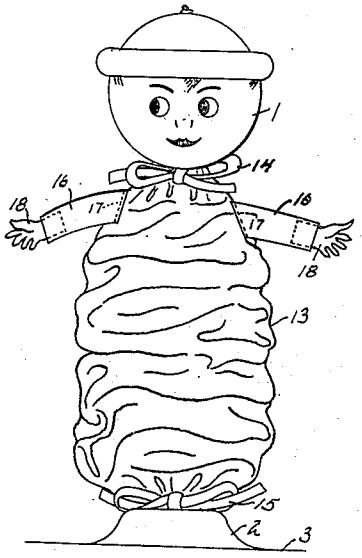


FIG. 1

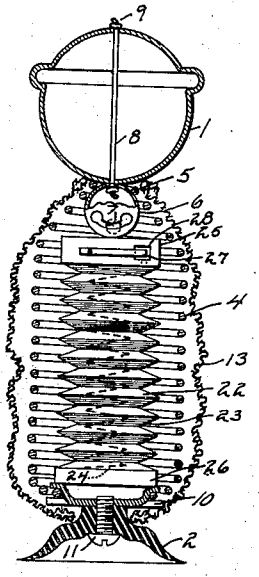


FIG. 2

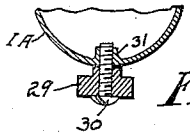


FIG. 5

FIG. 4

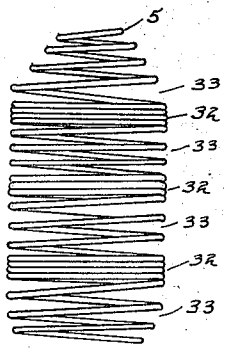


FIG. 6

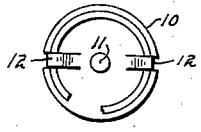


FIG. 3

INVENTOR.

BY Milo M. Janas

Harry P. Canfield

ATTORNEY.

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TOY DOLL

Milo M. Janas, Cleveland, Ohio

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7 Claims. (Cl. 46—118)

This invention relates to toys and particularly to toy dolls.

It is among the objects of the invention to provide generally an improved construction of toy doll;

To provide generally a toy doll which may be manipulated in an improved manner to change the shape thereof and to cause it to have lifelike movements;

To provide a toy doll construction adapted to be secured at a foot portion thereof to a support, and the body of which is rendered resilient in an improved manner, whereby it may be elongated and/or bent from side to side and whereby it will return resiliently to a normal position when released;

To provide a toy doll comprising an intermediate extensible and contractable body and having a garment covering and arranged to cover the body in all extended and contracted conditions of the body;

To provide a toy doll comprising an intermediate extensible and contractable body spring, and a head element on one end of the spring, and a foot element at the other end of the spring, and comprising improved means for connecting the head element and the foot element to the spring;

To provide a toy doll having an extensible body spring whereby upon extending the spring the body will be elongated and upon releasing the spring the body will be contracted to normal length, and the spring being constructed so as to prevent excessive accumulation of force therein when extended, whereby it may contract when released without excessive shock;

To provide an approved construction of toy of the type utilizing a vacuum cup for mounting and supporting the same.

Other objects will be apparent to those skilled in the art to which my invention appertains.

My invention is fully disclosed in the following description taken in connection with the accompanying drawing in which;

Fig. 1 is an elevational view of a toy doll embodying my invention;

Fig. 2 is a longitudinal sectional view of the embodiment of Fig. 1;

Fig. 3 is a cross sectional view taken from the plane 3 of Fig. 2; with parts behind the plane of section omitted;

Fig. 4 is a view to a smaller scale than Fig. 1, illustrating the action of the doll when manipulated by hand and in different positions, the view being diagrammatic;

Fig. 5 is a view of parts similar to parts of Fig. 3, but illustrating modifications;

Fig. 6 is a view illustrating a modification of a spring element of Fig. 2.

My invention may be embodied in a variety of different constructions. In the embodiment of my invention illustrated in the drawing, I have shown at 1, a doll head which may be made from solid material, but which is preferably hollow to render it of light weight, and which therefore is preferably formed from sheet metal or sheet Celluloid, plastic material or the like. The head 1 may be of any desired attractive configuration with features of a face thereon, such for example, as those illustrated in Fig. 1.

At 2 is a foot element of the doll, and this element is in the form of a suction cup formed from rubber or like material whereby when pressed upon a support such as that shown at 3, it will adhere thereto and support the doll.

At 4 is a coiled, preferably helical, spring which is normally in contracted condition. The upper end of the spring is attached to the head 1, and the lower end is attached to the foot element 2. Various means of attachment may be provided. In the construction shown in the drawing, the upper end of the spring is of reduced diameter as at 5, and an enlarged object or device 6 is secured to the lower outer portion of the head 1, and the upper convolutions 5 of the spring are disposed between the device 6 and the head. Preferably the device 6 is a sound emitting bell having a ball clapper 7, and secured to the head by a cord 8, knotted within the bell and passing upwardly through suitable perforations in the bell and head and knotted above the head as at 9.

The small diameter convolutions 5 of the spring, by being disposed above the bell 6 are trapped between the bell and the head and form a juncture for the spring with the head.

The lower end of the spring 4 may be secured to the suction cup foot 2 in any suitable manner. The means shown comprises a sheet metal clip device 10 secured to the upper side of the cup by a screw 11, and having ears 12—12. The lower end of the spring rests upon the clip device 10, and the lower convolution thereof is caught under the ears 12—12, which may bend over the lower convolution to effect a secure attachment between the spring and the foot.

A garment 13 is provided, of tubular form, and of considerable fullness longitudinally. The upper end of the garment has a drawstring or ribbon 14 by which is may be gathered and

drawn together immediately under the head 1 and tied in a bow knot as shown, whereby it will completely cover the upper end of the spring and the bell. The lower end of the garment 13 is similarly provided with a draw string or ribbon 15 by which it is constricted and gathered and drawn together under the clip device 10 and tied in a bow knot as shown, thereby completely covering the lower end of the spring and the clip device. Arms 16—16 are provided preferably formed from the garment material and sewed thereto as at 17—17, and having hands 18—18 in the outer ends of the arms which hands may be formed from moulded material and secured to the arms in any suitable manner.

In the operation of the doll, it may be secured, as will be well understood, by means of the suction cup 2, to any suitable support. It then may be bent from side to side to such positions as those illustrated at 19, in Fig. 4, and when released will be swung back to its vertical position by the spring. Again, the head 1 may be grasped in the hand and pulled upwardly and the body will thereby be elongated and upon releasing the head it will snap back to its original position. The garment 13 being of longitudinal fullness will contract and expand with the spring and maintain the same covered in all contracted or extended conditions of the spring, as shown at 20 and 21. While in the elongated position the body may be bent from side to side, as shown at 21.

Within the spring 4 may be provided a sound producing device 22. This device may be of any suitable construction. That shown comprises a bellows 23 having therewithin a spring 24 and having at the upper end of the bellows a head 25, and at its lower end a head 26 and provided with a reed 27 or like device on the upper head which will emit sound when the head 25 is depressed and air therein is forced out through an opening 28. The spring 24 normally holds the head 25 in an upper position in engagement with the device 6. When the doll head 1 is raised, as described, the bellows is expanded by the spring 24. The spring 24 is formed so that it only expands a relatively small amount to reach its full length and raises the head 25 a small distance; so that the head 1 and device 6 may be raised above the head 25. When the head is released, the spring will contract and cause the device 6 to strike a blow upon the head 25 contracting the bellows and causing the reed 27 to emit sound, which sound may be caused to simulate a voice.

The bellows 23 and the spring 24 being laterally flexible, will not interfere with lateral movements of the body described above.

The garment 13 may, as stated, be tubular, and may be removed and laundered upon untying the bow knots 14 and 15, and then replaced by again telescoping it into position over the head or foot, it being made of sufficient diameter for this purpose.

In the modification shown in Fig. 5, instead of the bell 6 a button or disc 29 is provided having a screw 30 projecting through a perforation therein and threaded into a tubular bore 31 in the lower portion of the head 1A, and when this construction is used the cord 8 may be omitted. The spring and garment may be constricted around and over this disc 29 as described in connection with the bell of Fig. 1.

The toy doll described above is particularly suitable as a plaything for tiny infants, including those occupying a crib or high chair, although it will be suitable also for older children. By means of the suction cup the doll may be attached to a surface of the crib or chair and then will not fall on the floor. Again, when an infant reaches for the doll and touches it, it will bob from side to side and sound the bell 6 and be a source of amusement. Whenever the doll is touched or grasped and then released it will move and sound the bell 6, and appear to be alive. By being attached to a support, the doll will not become lost or misplaced. It can readily be secured to a support out of reach of the infant's mouth, and the infant will not be able to put any part of the doll in its mouth. The child may be amused by the elongation and bending from side to side of the doll, and by its inherent qualities of always returning to its normal condition, and by the sound which it will emit from the bell 6 and from the device when operated as described above.

The spring 4, may be made as shown in Fig. 6. The intermediate convolutions of this spring are in groups 32 and 33. The convolutions in the groups 32 are wound close together or tight together and those in the groups 33 are wound spaced apart.

With a spring of this construction, I find that the contracting force, after the spring has been expanded and is then released as described above, decreases more rapidly as the spring contracts than if the convolutions were all close to one another, so that the shock of the parts which occurs at the end of the contracting action of the spring is diminished, and for this reason in some cases, it may be desirable to provide a spring some of the convolutions of which are spaced closer together than others.

As stated above, my invention is not limited to the exact details of construction illustrated and described. Changes and modifications may be made within the spirit of my invention without sacrificing its advantages and within the scope of the appended claims.

I claim:

1. In a toy doll a head portion, and foot portion, and a body comprising an intermediate normally contracted coiled spring connected at spaced portions thereof to the head and foot portions, and a garment covering the spring, some of the convolutions of the spring being spaced closer together than others.

2. A toy doll comprising a cup foot element, a head element, a normally contracted extensible laterally bendable coil spring secured at opposite end portions to the head element and foot element respectively, a tubular garment telescoped over the spring and contracted inwardly over the opposite ends of the spring under the head element and above the foot element to secure the same in covering position on the spring and having sufficient fullness longitudinally of the spring to cover and conceal the spring in all extended and laterally bent and contracted conditions of the spring.

3. The doll described in claim 2, and in which the garment is detachable at said opposite ends and is thereby rendered removable and has laterally extending arms secured thereto adjacent to the head element.

4. In a toy doll construction, a head, a foot portion comprising a rubber suction cup, a body comprising a normally contracted coiled spring intermediately connected to the head and foot portions, a tubular garment covering the spring and extending to the head and foot portions, the

spring being axially expansible and laterally bendable, means providing shoulders adjacent the opposite ends of the spring, below the head and above the suction cup, the garment having sufficient longitudinal fullness to expand and contract longitudinally and bend laterally with the spring, and to maintain it covered in all conditions of the spring and being secured in covering position on the spring by contracted portions at opposite ends of the garment outwardly of the shoulders.

5. In a doll, a head, a foot portion comprising a suction cup, and a body comprising a normally contracted coiled spring connecting the head and foot portion, a tubular garment covering the spring, the spring and garment being co-extensively expansible and the garment being secured in spring covering position by being contracted beyond the opposite ends of the spring.

6. In a doll construction, a foot portion comprising a suction cup, a body portion comprising a normally contracted coiled spring, a head, a bell secured to the underside of the head, the spring being coiled around between the bell and the head at one end and secured to the foot portion at the other end, a tubular garment telescoped over and concealing the spring, and contracted at one end between the spring and head and at the other end contracted between the spring and the suction cup, the spring arranged to be expanded upon grasping the head and pulling thereon, and adapted to contract and snap back to normal condition upon releasing the head, said garment having sufficient longitudinal fullness to cover and conceal the spring in extended and contracted conditions thereof.

7. A toy doll comprising a body in the form of a normally contracted coiled spring, a suction cup on the foot end of the spring, a head on the other end of the spring, the spring adapted to be stretched upon grasping the head and pulling thereon, a garment covering the spring in its contracted and extended conditions, a sound producing device supported by the cup adapted to emit sound when struck a blow, and means associated with the head for striking a blow on the sound producing device when the spring has been stretched and is then released.

MILO M. JANAS.