July 11, 1950 N. BORRESEN 2,514,356

TOY WITH MOVABLE FIGURES

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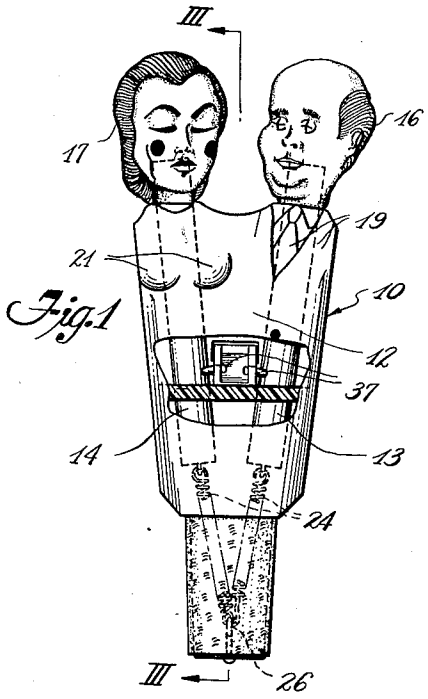


Fig. 1

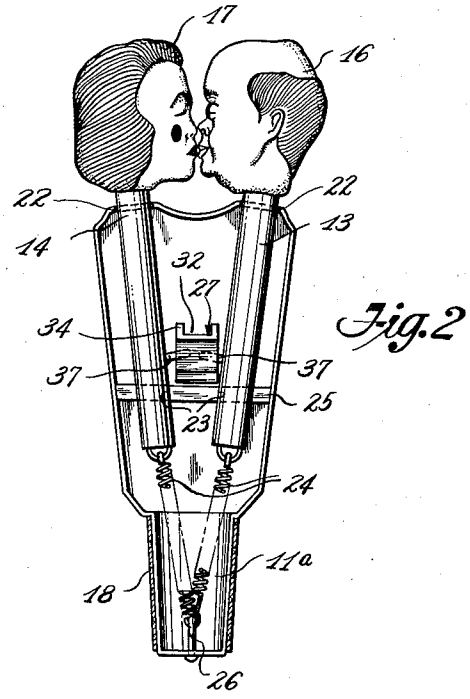


Fig. 2

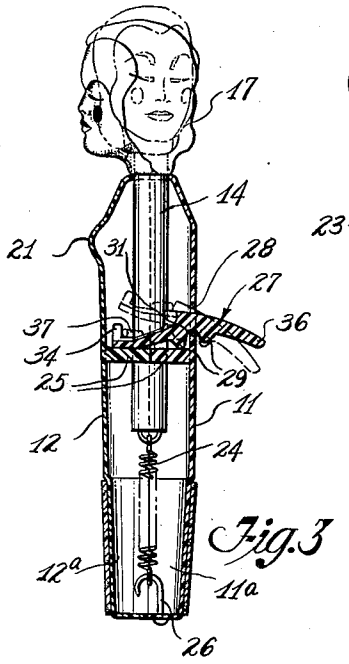


Fig. 3

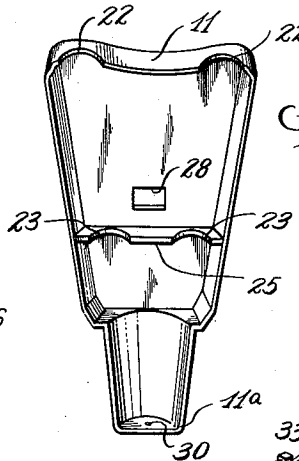


Fig. 4

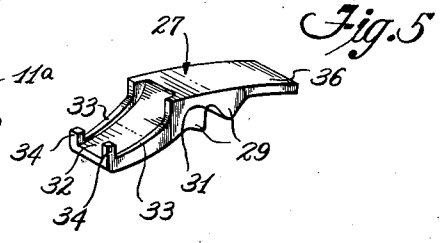


Fig. 5

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TOY WITH MOVABLE FIGURES

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2 Claims. (Cl. 46—119)

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My invention relates to toys, and has particular reference to a toy that includes mechanically movable parts operated by a simple lever mechanism.

While various representative toys may be operated by the mechanism of my invention, I find that it may be advantageously employed on miniature representations of living subjects, such as human beings, although it is equally applicable to other living subjects, such as animals and birds. I will describe my invention, therefore, as applied to the representation of a man and a woman wherein the heads of these representative figures are movable upwardly and are rotatable. The faces of the figures accordingly may appear to look forwardly in the normal aspect of the toy, and when the toy is operated, the heads may be rotated and raised so that the faces appear in juxtaposition, as though performing the act of kissing.

It is therefore an object of my invention to provide a toy having mechanically movable parts that may be actuated by a simple lever mechanism.

Another object of my invention is to provide an animated toy wherein a single lever may actuate a plurality of members.

Still another object of my invention is to provide an animated toy having a plurality of parts that may be simultaneously actuated by a lever mechanism.

A further object of my invention is to provide a toy having a body portion representative of a man and a woman and having animated heads that move to place the faces of the heads in juxtaposition.

Other objects and advantages of my invention will be apparent from the following description and claims, considered together with the accompanying drawings, in which

Fig. 1 is an elevation view with parts broken away of a presently preferred embodiment of my invention;

Fig. 2 is an elevation view of the toy of Fig. 1 with the forward molding separated from the rear molding to show the interior construction of the toy and illustrating the heads of the toy in their actuated position;

Fig. 3 is a sectional view along the line III—III of Fig. 1;

Fig. 4 is a perspective view of the back molding of the toy; and

Fig. 5 is an enlarged perspective view of the lever mechanism for actuating the toy.

Referring to the drawings, the toy may include

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a body portion 10 which may include two principal molded members, a back molded member 11 shown principally in Fig. 4, and a forward molded member 12 identifiable in Fig. 3. The two body portions 11 and 12 may be secured together by gluing or otherwise attaching them at the joint between them. The toy may also include two shafts 13 and 14 having their upper ends projecting above the body 10 and upon which may be mounted the head 16 of a man and the head 17 of a woman, respectively. These shafts may be inclined with respect to each other, if desired. The body member 10 may be of a size that may be conveniently grasped within the hand, and additionally may be provided with means for securing it in any convenient receptacle, such as the mouth of a bottle. Accordingly each molding 11 and 12 may terminate in a tapered shank portion 11*a* and 12*a*, of a size that may fit within most bottles, and a thin strip 18 of compounded cork or similar material may be wrapped around the two tapered portions 11*a* and 12*a* to asssist in retaining the toy as a whole in a bottle.

The forward molding 12 may be formed with various shapes thereon to carry out the representation of a man and a woman, and accordingly a tie and coatline of the man may be indicated by raised portions 19 and the bust of the woman may be represented by raised portions 21. The head 16 and 17 may also be shaped to carry out the representation, and various features may be painted or colored thereon to increase this representative effect.

I prefer to form the body moldings 11 and 12, as well as the heads, from plastic moldings, and any of a large variety of plastic materials may be used for this purpose. The use of plastic materials, however, is merely illustrative, as various other materials could be used such as ceramics, sheet metal, papier-mâché, etc. The two body halves 11 and 12 may be secured together by applying any suitable plastic solvent to the edges of the two body portions and joining them together. Likewise if the heads 16 and 17 are made of two-part moldings, these two parts may be secured together by the use of any suitable glue, adhesive, or plastic solvent applied to the edges thereof. For example, Celluloid may be used as the plastic, and amyl acetate or chloroform may be used as solvents for causing the edges of the moldings to adhere.

The two body moldings 11 and 12 may include semi-circular bearing portions for journaling the shafts 13 and 14. Accordingly the upper edge of

the two moldings may have semi-circular recesses 22 formed therein, and at a mid-point or lower portion of the moldings a transverse bracket 25 may be integrally molded to include semi-circular portions 23. The shafts 13 and 14 may be urged downwardly into the body members by tension springs 24 each having one end secured to the bottom of the shafts and having their other end secured to a hook 26 which may pass through an aperture 30 in the back molding 11.

The shafts 13 and 14 may be rotated together with their associated heads 16 and 17 by means of a lever 27 best shown in Fig. 5. This lever may be positioned in a rectangular aperture 28 in the rear molding 11, and may be held therein by projecting ridges 29 on the lower surface of the lever. Accordingly, as shown in Fig. 3, the trough 31 between the two ridges 29 acts as the fulcrum point for the lever. The lever further includes a channel 32 having downwardly slanting edges 33 terminating in upright posts 34. The lever 27 may also include an outwardly extending flat portion 35 that may be manually engaged by actuation.

The shafts 13 and 14 are limited in their downward movement induced by the springs 24 by means of transversely projecting pins 37 resting upon the lever edges 33. These pins are so positioned with respect to the length of the shafts 13 and 14 that the heads 16 and 17 are touching the top of the body 10 when in their normal position. Also it should be noted that the tension of the springs 24 pulls the pins 37 downwardly against the lever 27 as it rests upon the partitions 25 so that the lever 27 is retained within the aperture 28 by engagement of the trough 31 with the lower edge of this aperture.

In operation, the entire toy may be positioned in the top of a bottle, or may be manually grasped. The lever 27 may be actuated by engaging the flat projecting surface 36 thereof with the thumb or other digit and rotating it in a clockwise direction with respect to the illustration of Fig. 3. The edges 33 of the lever are then changed from a downwardly slanting surface to an upwardly slanting surface, as shown in broken outline in Fig. 3. Accordingly the tension of the springs 24 acting against the pins 37 causes the pins 37 to slide toward the fulcrum point 31 of the lever and thus cause the shafts 13 and 14 to rotate in opposite directions. This actuation of the lever will also cause a slight raising of the shafts 13 and 14, as shown in Fig. 2. When the lever 27 is disengaged, the tension of the springs 24 will cause the shafts to move downwardly, thus returning the lever 27 to the starting position shown in Fig. 3. A downwardly slanting surface is thus provided by the edges 33 on the lever, and the springs 24 will cause the pins 37 to slide downwardly on these surfaces, which in turn rotates the shafts to their starting position. Thus the mechanism of my invention causes the heads of the toy to rotate from their normal position shown in Fig. 1 to their actuated position shown in Fig. 2, at which point the two figures appear to be kissing each other. The sliding action of the pins on the lever edges may be facilitated by rubbing graphite or other lubricant on the edges 33. The mechanism employed is simple and extremely inexpensive to fabricate.

As noted previously, the body moldings 11 and 12 may be plastic moldings. The shafts 13 and 14 may advantageously be made of wood, although metal or plastic would be satisfactory. Also the lever 27 may be formed as a plastic molding.

Although I have described my invention with respect to a specific embodiment thereof, I do not care to limit myself to this specific illustration, since it is obvious that various modifications may be made therein without departing from the true spirit and scope of the invention. For example, the mechanism could readily be employed in a toy dancer wherein the legs could be caused to rotate and extend by a lever actuation. Accordingly I do not limit myself in any way, except by the terms of the following claims.

I claim:

1. A toy comprising: a body member; a pair of shafts journaled side by side in said body member, one end of each of said shafts projecting from said body member; toy representations of human heads mounted on said projecting ends; a radially projecting pin on each of said shafts within said body member; a lever fulcrumed on said body member with one end projecting therefrom and with its other inner end in position to be engaged by said pins; cam surfaces on said inner end for coacting with said pins to rotate said shafts; and yielding means normally urging said shafts axially in a direction to cause said pins to bear against said lever cam surfaces, said heads and pins being located and positioned so that said heads normally face in the same general direction, and upon actuation of said lever said shafts will be cammed axially and rotated sufficiently to cause said heads to face each other.

2. A toy comprising: a body member; a pair of shafts journaled side by side in said body member, one end of each of said shafts projecting from said body member; toy representations of human heads mounted on said projecting ends; a radially projecting pin on each of said shafts within said body member; a lever fulcrumed on said body member with one end projecting therefrom and with its other inner end in position to be engaged by said pins; cam surfaces on said inner end for coacting with said pins to rotate said shafts; stops at the ends of said cam surfaces for limiting the rotation of said shafts; and yielding means normally urging said shafts axially in a direction to cause said pins to bear against said lever cam surfaces, said heads and pins being located and positioned so that said heads normally face in the same general direction, and upon actuation of said lever said shafts will be cammed axially and rotated sufficiently to cause said heads to face each other.

NICO BORRESEN.

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