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DOLL KISSING MECHANISM

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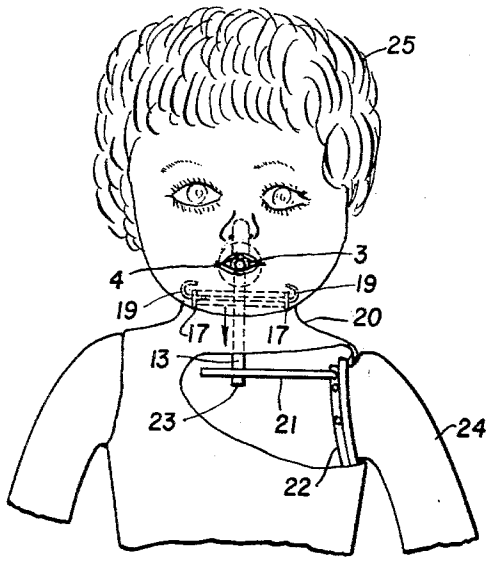


Fig. 2

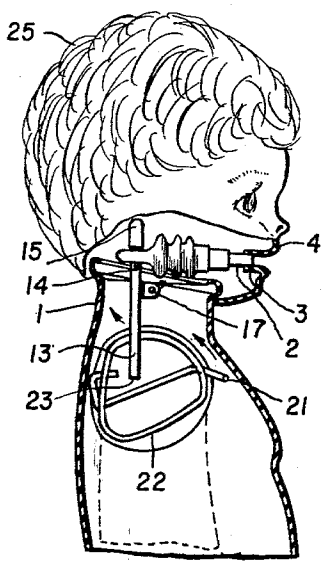


Fig. 1

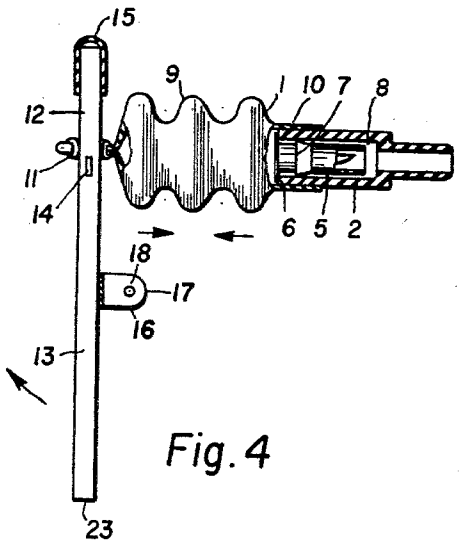


Fig. 4

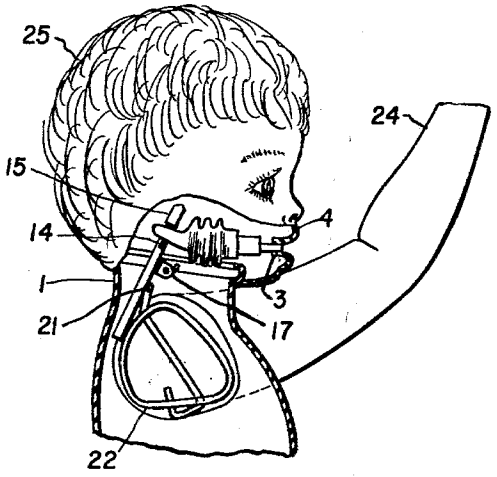


Fig. 3

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DOLL KISSING MECHANISM

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5 Claims. (Cl. 46—118)

The present invention relates to an improved doll kissing mechanism.

The present invention relates to an improvement in mechanisms installed in dolls for the simulation of a kiss.

In the past many efforts have been made to simulate realistic human attributes in dolls. Heretofore, one of the most difficult and complicated of attributes to simulate in dolls has been the kiss. There do exist extremely complicated mechanisms which simulate the lip movement and kiss sound within dolls; their complication has provided a high cost for dolls, including such mechanisms, such as to limit the ready availability to all, of kissing dolls.

With regard to the present invention, a simple lever mechanism, acting upon a bellows, attached inside the doll's head, simulates both sound and lip movement of a kiss upon actuation by a simple movement of the doll's arm.

Although such novel feature or features believed to be characteristic of the invention and are pointed out in the claims, the invention and the manner in which it may be carried out, may be further understood by reference to the description following and the accompanying drawings.

FIG. 1 is a cutaway side elevation of a doll, showing the kissing mechanism of the present invention.

FIG. 2 is a partially cutaway front elevation of a doll, showing the arm actuating lever.

FIG. 3 is the doll of FIG. 1, with a raised arm, actuating the kissing mechanism.

FIG. 4 is a detail of the kiss mechanism, showing a partial cutaway of the bellows and sounding reed.

Referring now to the figures in greater detail, where like reference numbers denote like parts in the various figures.

The kiss mechanism 1 of the present invention comprises a reed holder 2 adapted to be inserted into an opening 3 communicating with a doll's mouth 4. Within the reed holder 2 as shown in FIG. 4, is a reed 5 held firmly in the reed holder 2 by a lip 6 which prevents further movement of the reed 5 inward in the reed holder 2 and a flared collar 7 firmly gripping the inner portion of the reed holder 2. The chamber 8 formed by the inner portion of the reed holder 2 also serves as a resonator for the sound of the reed.

A convoluted bellows 9, having resilient characteristics, has an open end 10 firmly attached about the outer portion of the reed holder 2.

A grommet 11 integral to, or connected to the bellows 9 is adapted to fit around the upper portion 12 of T-shaped rocker arm 13 where it is held against downward slippage by a small protuberance 14; the grommet is removably attached to upper portion 12 of the T-shaped rocker arm 13, enclosed by a small removable rubber cap 15. The crossbar 16 of the rocker arm 13 includes a small finger 17 at either of its extremities. Each finger 17 is provided with an eyelet 18. The rocker arm 13 is attached inside the doll body by wire or wires 19 passing through the neck 20 of the doll.

An actuating lever 21 is attached to the inside portion of a doll arm 22 and extends at a right angle from the doll arm portion 22 across the front of the doll on the inside of the doll and extends across the depending lower portion 23 of the T-shaped rocker arm 13.

In operation the reed holder 2 is connected to opening 3 in the doll's mouth 4 with the bellows 9 attached to the reed holder 2. The upper portion 2 of the rocker arm is pushed forward by raising the arm of the doll, rotating the actuator 21 as it comes in contact with the lower portion 23 of the T-shaped rocker arm. The T-shaped rocker arm 13 pivots about the wire 19, forcing the upper portion 12 of the T-shaped rocker arm forward. The forward movement of the upper portion 12 compresses the bellows 9 pushing forward toward the reed holder 2 in opening 3 in the doll's mouth 4, which is flexible, thus causing a pucker to be formed on the lips of the doll's mouth 4. A continuation of the upward movement of the doll's arm 24 forces the actuator 21 beyond the extending end of the depending lower portion 23 of the T-shaped rocker arm 13. Once the actuator 21 has passed beyond the end of the lower portion 23 of the T-shaped rocker arm 13, the compression of the bellows 9 is released, as a spring, relaxing the pucker at the doll's mouth 4 and sucking air through the opening 3, past the reed 5 in the reed holder 2, creating a kissing sound simultaneously with the release of the pucker. The reed 5 is sound actuated in only one direction by air passing from the outside of the doll's mouth 5.

Continued counterclockwise rotation of the doll arm 24 will repeat the doll kiss cycle, as the actuator 21 engages the lower portion 23 of the T-shaped rocker arm 13. The lowering of the doll arm 24 after one kiss cycle has been completed, causes the actuator arm 21 to return past the lower portion 23 of the T-shaped rocker arm 13, moving from the rear to the front of the doll, causing the upper portion 12 of the T-shaped rocker arm 13 to move backward, slowly extending the bellows 9. After the actuator 21 passes beyond the depending end of the lower portion 23 of the T-shaped rocker arm 13, it resumes its normal position. This normally forward movement compresses the bellows 9 and does not cause the reed 5 to sound since the reed is air actuated in only one direction.

The grommet 11 fits loosely about the upper portion 12 of the T-shaped rocker arm 13 and permits the doll head 26 to freely rotate without affecting this actuation response.

The actuator 21 extends from the upper portion of the inside part of the doll arm 22. Turning the doll arm 22 causes the actuator 21 to circumscribe a circle, while the lower portion 23 of the T-shaped rocker arm 13 rests tangent to it for a distance shorter than the length of said lower portion 23 so that there is always a release at some point upon raising or lowering the doll arm 24.

The bellows 9 may be of rubber or any resilient substance providing a spring action when under compression.

The terms and expressions which are employed are used as terms of description, it is recognized, though, that various modifications are possible within the scope of the invention claimed.

We claim:

1. A doll kiss-simulating mechanism comprising a reed, means adapted to hold said reed with one end secured directly to an opening in a doll's mouth, a rocker arm, resilient air-impelling means having an opening at one end communicating with the other end of said reed and the opposite end communicating with said rocker arm, said rocker arm adapted to be pivotally mounted at the neck of said doll, and actuating means adapted to move said rocker arm to compress and release said air-impelling means.

2. A doll kiss-simulating mechanism comprising a reed, means adapted to hold said reed firmly with one end secured directly to an opening in a flexible doll's mouth, a bellows having an opening at one end communicating with the other end of said reed and attaching means at

its other end, said other end of said bellows attached to a rocker arm, a rocker arm, said bellows end on said rocker arm and said reed and said flexible mouth all being aligned, and actuating means adapted to move said rocker arm to actuate said bellows moving said aligned flexible mouth and causing said reed to sound.

3. A doll kiss-simulating mechanism comprising a reed holder having one end secured directly to a flexible doll's mouth, a reed including; an end flange having a lip engaging said reed holder; and a flange engaging said reed holder, a bellows having an opening at one end communicating with the other end of said reed holder and the other end communicating with a rocker arm, a rocker arm, said bellows end on said rocker arm and said reed and flexible mouth being aligned, and actuating means adapted to move said rocker arm to actuate said bellows.

4. A doll kiss-simulating mechanism comprising a reed, one end of said reed secured directly to a doll's mouth, a bellows having an opening at one end attached to the other end of said reed and the other end of said bellows communicating with a rocker arm, a rocker arm; said rocker arm including an upper portion; a lower portion; and a central crosspiece; said rocker arm adapted to be pivotally mounted pivoting at the neck of a doll, and actuating means adapted to move said rocker arm to actuate said bellows.

5. A doll kiss-simulating mechanism comprising a reed holder having one end secured directly to a flexible doll's mouth, a reed on said holder, said reed adapted

to sound to air impelled in only one direction, a resilient bellows having an opening at one end attached to the other end of said reed holder and a grommet at its other end, a rocker arm, said grommet of said bellows rotatably attached to the upper portion of said rocker, further said rocker arm including; a lower portion; and a central cross piece; and said rocker arm adapted to be pivotally mounted pivoting at the neck of a doll with the end of said bellows having the grommet thereon; said reed holder and said flexible mouth all being aligned, and actuating means adapted to be connected to the inside of said doll's arm rotatably extending inside said doll's body and adapted to contact and release said lower portion of said rocker arm to actuate said bellows moving said aligned flexible mouth and causing said reed to sound.

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