Sept. 7, 1954 C. BANNISTER 2,688,208

CRYING DOLL

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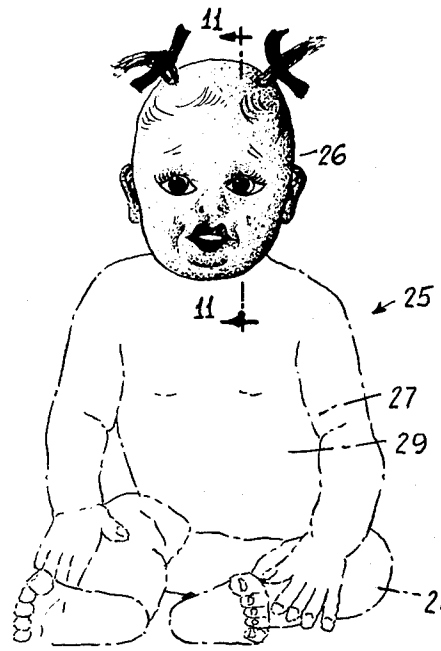


Fig. 1.

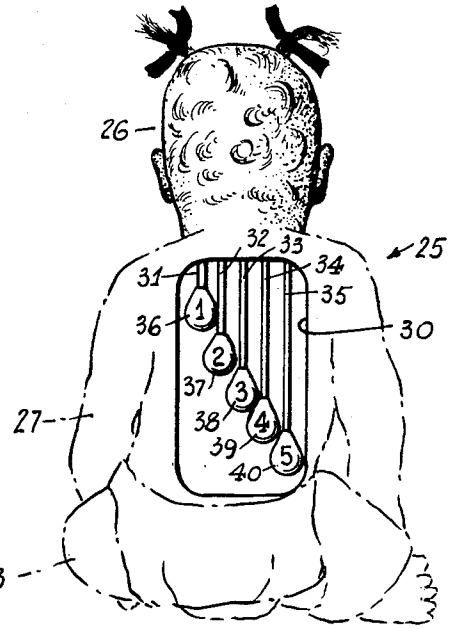


Fig. 2.

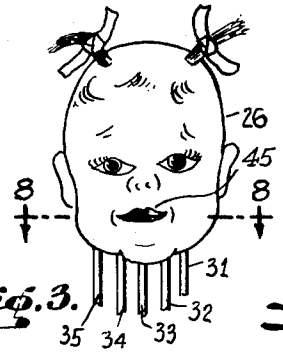


Fig. 3.

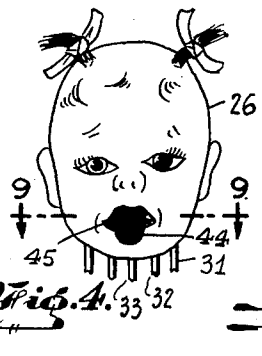


Fig. 4.

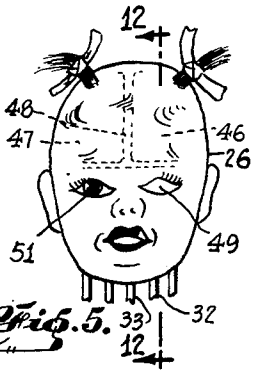


Fig. 5.

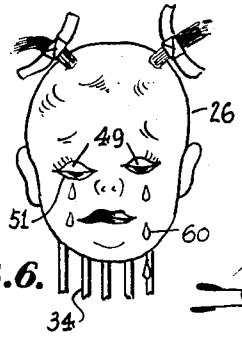


Fig. 6.

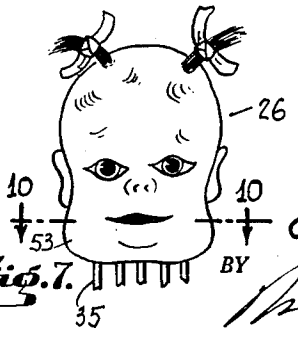


Fig. 7.

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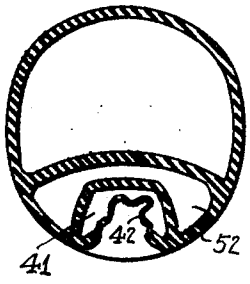


Fig. 8.

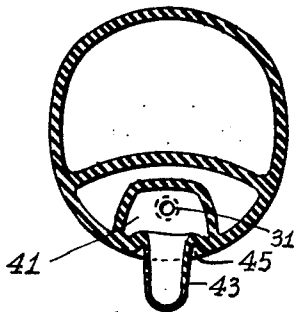


Fig. 9.

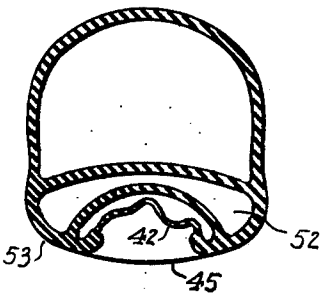


Fig. 10.

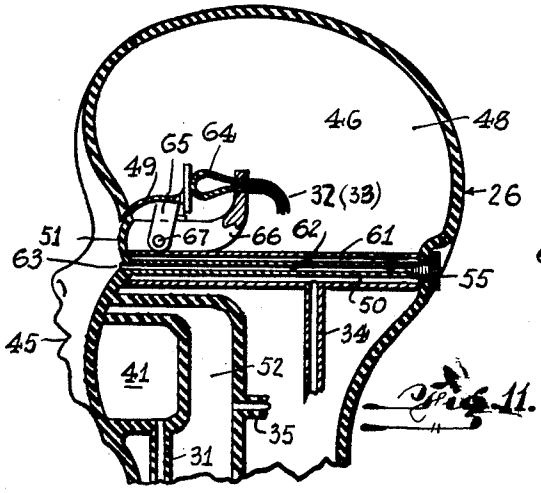


Fig. 11.

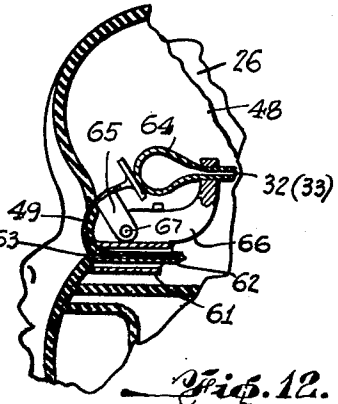


Fig. 12.

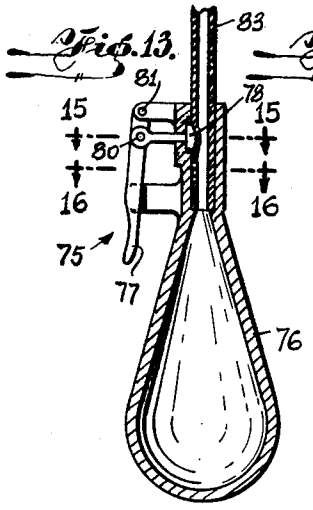


Fig. 13.

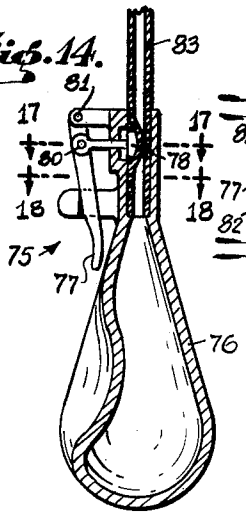


Fig. 14.



Fig. 15.



Fig. 17.

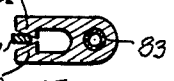


Fig. 16.

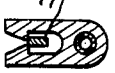


Fig. 18.

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UNITED STATES PATENT OFFICE

2,688,208

CRYING DOLL

Constance Bannister, New York, N. Y.

Application October 26, 1951, Serial No. 253,319

2 Claims. (Cl. 46—135)

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This invention relates to improvements in dolls, especially the kind known as animated dolls. Such dolls have been provided with mechanically movable eyelids, swinging eyes, sound-making mechanism, etc. However, these movements and sounds have in the main, lacked realism.

It is a purpose of this invention to provide for a doll construction made of flexible and elastic material, such as rubber, latex, or any of the many synthetic plastics having similar properties to rubber, incorporating means for the attainment of various desirable facial expressions.

It is another and important object of this invention to provide a plastic doll with a mobile face which can, by simple manipulation, be made to show many different expressions in the face.

It is another object of this invention to provide a flexible elastic doll with simple mechanism to produce a great variety of facial expressions.

It is a still further object of this invention to make this doll life like, thus adding to the effect of the many possible facial expressions.

It is still another object of this invention to combine the mobile face with a flexible rubber-like body, which in a known manner can be made to assume different positions of the body, as, for example, sitting or standing position, with fingers in outstretched or clenched position, by means of pliable wires imbedded in the torso and extremities.

The foregoing, and other objects, features and advantages of the present invention will appear in the following detailed description of an illustrative embodiment of the same to be read in connection with the accompanying drawing, forming a part of this specification and wherein:

Fig. 1 is a front elevational view of a doll in accordance with the invention, the body being shown in phantom lines;

Fig. 2 is a rear view of Fig. 1;

Figs. 3 to 7, inclusive, illustrate a few of the many typical expressions made possible by incorporation of the invention;

Fig. 8 is a horizontal sectional view on line 8—8 of Fig. 3;

Fig. 9 is a horizontal sectional view on line 9—9 of Fig. 4;

Fig. 10 is a horizontal sectional view on line 10—10 of Fig. 7;

Fig. 11 is a vertical sectional view on line 11—11 of Fig. 1;

Fig. 12 is a horizontal sectional view on line 12—12 of Fig. 5;

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Fig. 13 is a vertical sectional view through a possible valve construction (open position);

Fig. 14 is a vertical sectional view through the same possible valve construction (closed position);

Fig. 15 is a sectional view taken on line 15—15 of Fig. 13;

Fig. 16 is a sectional view taken on line 16—16 of Fig. 13;

Fig. 17 is a sectional view taken on line 17—17 of Fig. 14;

Fig. 18 is a sectional view taken on line 18—18 of Fig. 14.

Referring now more particularly to the drawings, which show one of the many possible structure examples by which the invention may be realized and carried out, there is disclosed a doll 25, preferably made by a molding process and having the head 26, arms 27, legs 28 and torso 29. The back of the torso 29 is provided with an opening 30, the purpose of which is later described. The head 26 is made of a very pliable and flexible material, such as, for example, rubber, latex, synthetic rubber, plastic. The inside of the head (Figs. 8 to 12, inclusive) is divided into a plurality of compartments, which are connected to respective tubes 31, 32, 33, 34, 35, which terminate in bulbs 36, 37, 38, 39 and 40. There may be more compartments and tubes with bulbs than shown, but for simplicity only five are shown. For example, bulb 36 and tube 31 may connect with the compartment 41 controlling the element 42 to protrude as at 43 in Figs. 4 and 9 to simulate a tongue 44 sticking out of the mouth 45. So that tongue element 43 will be projected instead of the walls of compartment 41 being deformed when air pressure is applied to the compartment, I have formed element 43 of less thickness than the walls of compartment 41.

The upper portion of the doll's head is separated by a vertically disposed partition 48 extending from front to back of the head thereby forming compartments 46 and 47, the front walls of which are formed by the face of the doll. This vertically disposed partition not only provides compartments but also functions as a structural member providing a certain desired degree of rigidity to the upper head area. Bulbs 37 and 38 and their associated tubes are adapted to operate the eyelids 49 of the doll in a manner to be hereinafter described in detail. One tube extends into one of the compartments and the other tube extends into the other compartment. As I will explain, the face of the doll can be given

the appearance of blinking, winking or sleeping by pressing the respective one or both of the bulbs **37** and **38**.

Tube **34** again with the corresponding bulb **39** may operate a water-containing compartment **50** to cause tears to flow from the eyes **51**. Or again, tube **35** with bulb **40** may be connected to a compartment **52**, causing (by the pressure on the bulb **40**) the face to expand as at **53** in Fig. 7.

The operation is as follows: a doll clothed (not shown) in a manner which permits the operator's hand to reach under the dress into the opening **30** and grip any one of the five bulbs Nos. 1 to 5, thus controlling (*a*) the extension of the tongue **44**; (*b*) closing of eyelids **49**; (*c*) tears to trickle from the eyes **51**; (*d*) expansion of cheeks **53**. Pressing against any of the five bulbs will cause air pressure in the corresponding compartment and operation of the respective devices. Water can be replenished by means of a suitable plug **55** at the rear of the head **26**.

Referring to the water compartment for control of tears **60**, there is shown an outer compartment **61** connecting to the air tube **34**. Within the compartment **61** there is an inner compartment or casing **62** which is filled with water. Pressure on the bulb **39** will cause air pressure in the compartment **61** to press against the inner compartment **62**, thus squeezing out water droplets in simulation of tears, through small openings **63** under the eye **51**. (See Figs. 11 and 12.) It will be understood that compartments **61** and **62** are sufficiently wide to extend between the two eyes **49** and **51** so that when operated, tears may drop from each eye.

To close the eyelids **49**, pressure on the respective bulb **37** or **38** will cause a small balloon **64** to expand as in Fig. 12, thus moving the arm **65** mounted on a bracket **66** by means of a pin **67**. In all these operations, the design of the bulbs **36** to **40**, inclusive, is such that they will have a tendency to return to their normal position when the pressure is released. Thus the expansion air in the compartments is released and this portion of the face will return to its normal position. However, in case it is desired to maintain a certain expression, a valve **75** may be provided (Figs. 13 to 18, inclusive).

After the bulb **76** has been pressed, a lever **77** may be, by the use of the thumb, put into the position shown in Fig. 14. Fig. 13 shows the valve in open position. Fig. 14 shows the valve in closed position. In this case, a plunger **78** has been operated by pressure against handle **77** connected with the plunger **78**. The plunger **78** is connected to the handle at **80** and hinged at **81**. Projections **82** retain the handle **77** in closed position until the projections **82** have been separated, when the plunger **78** will return by the air pressure in the tube **83** to its normal open position.

It is understood that many more than the foregoing explained facial expressions are possible with various combinations by utilization of the aforesaid mechanism, as well as by additional mechanism.

Although I have described my invention with considerable detail and with respect to a particular embodiment or form thereof, I do not desire to be limited to such details since many changes and modifications in the form, arrangements, proportions, sizes and instrumentalities may well be made without departing from the spirit and scope of my invention in its broadest aspect.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A doll comprising a body, a hollow elastic head having an embossed face and said face having openings therein, a closed compartment mounted within the head and extending from the front to the back thereof and fixed to the interiors of the front and back surfaces of the head, a hollow liquid containing casing mounted within said compartment and extending from the front to the back thereof and having apertures at the forward end thereof for forced passage of liquid therefrom through the openings in the face and said head having an opening through the back thereof, the rear end of the liquid containing casing being open and in line with the opening in the back of the head for filling the casing with liquid, means for closing the opening in the back of the head and the rear end of the casing and compressed air means connected with said compartment and operable to compress said liquid containing casing to force liquid to flow therefrom through the openings in the face.

2. A doll in accordance with claim 1, wherein said closed compartment will retain substantially its normal shape under such pressure.

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