Oct. 4, 1960 C. CATALANO ET AL 2,954,640

FEEDING AND WEEPING DOLL

Filed May 1, 1958

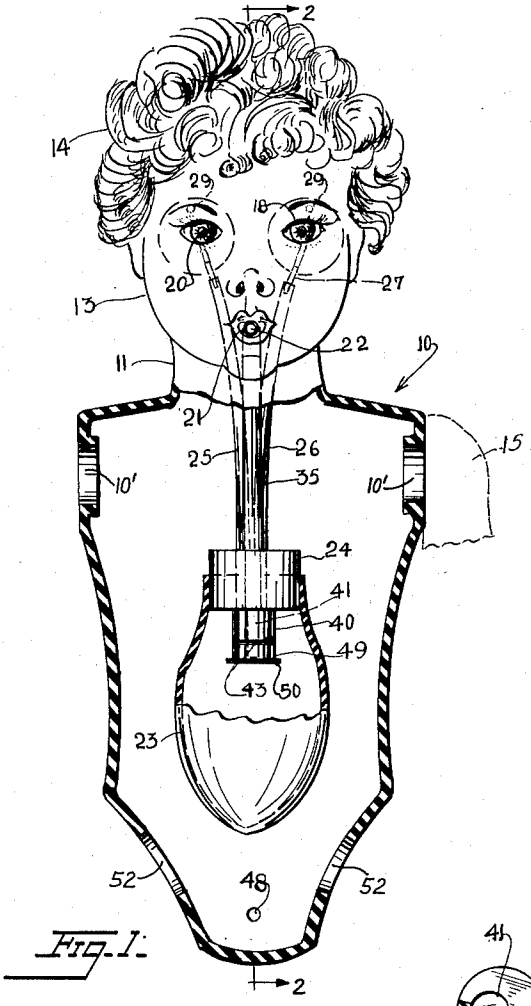

FIG. 1.

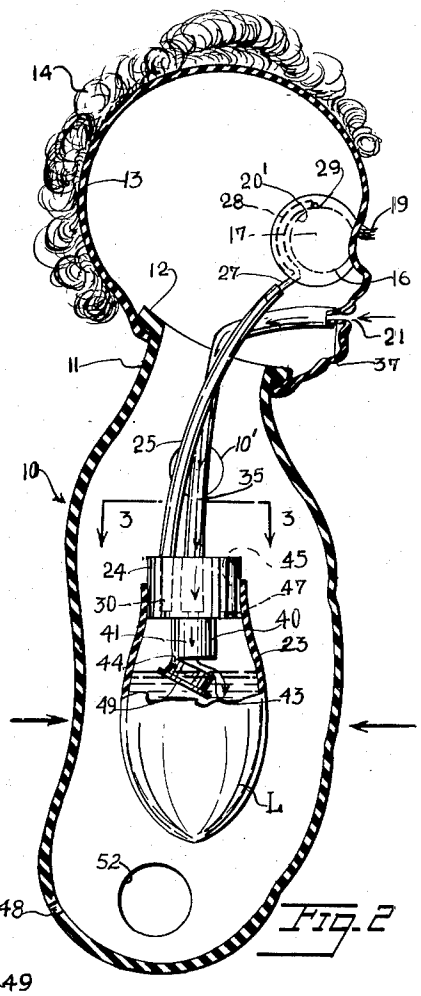

FIG. 2.

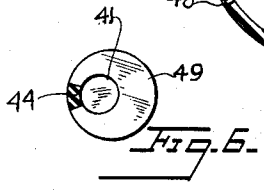

FIG. 6.

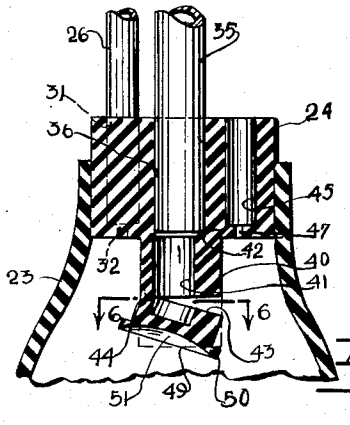

FIG. 4.

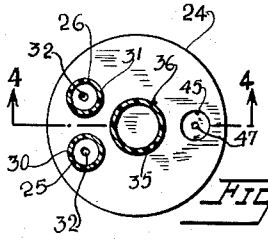

FIG. 3.

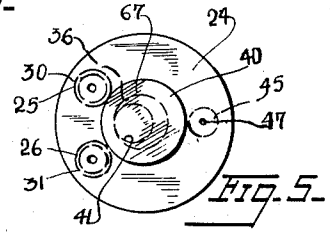

FIG. 5.

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FEEDING AND WEEPING DOLL

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1 Claim. (Cl. 46—135)

This invention relates to dolls and, more particularly, to new and useful improvements in a feeding, weeping and wetting type doll.

A principal object of the present invention is to provide a compressible doll which, after having been fed a quantity of liquid at the mouth thereof, will exude liquid from the lower body portion thereof and will also exude liquid from the eyes in simulation of tears when compressed.

Another object of the invention is to provide a doll having a compressible body cavity with a liquid-containing bulb and an associated valve having inlet and outlet ports, said ports being connected to openings at the eyes, mouth and lower rear end of the torso of the doll.

A specific object of the invention is to provide a doll of this type with a flap valve mechanism openable by the downward flow of liquid and closable by the upward thrust of liquid upon compression of the body of the doll.

It is also proposed to provide a doll of this type that is simple in construction and which can be manufactured and sold at a reasonable cost.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claim in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a front elevational view of the torso and head of a doll embodying our invention, parts being shown broken away, the valve being shown closed, a fragment of an arm being shown.

Fig. 2 is a vertical sectional view taken on the plane of the line 2—2 of Fig. 1, the valve being shown open.

Fig. 3 is an enlarged cross-sectional view taken on the plane of the line 3—3 of Fig. 2.

Fig. 4 is a cross-sectional view taken on the plane of the line 4—4 of Fig. 3.

Fig. 5 is a bottom plan view of the valve body.

Fig. 6 is a cross-sectional view taken on the plane of the line 6—6 of Fig. 4.

Referring in detail to the drawings, a hollow torso 10 is shown formed of rubber, but may be made of vinyl or polyethylene plastic or other suitable flexible or resilient material having the normal shape shown in Figs. 1 and 2. A neck joint 11 is formed integrally with the torso at the top thereof and terminates in an annular flange 12. A hollow head 13 of the same material as the torso seats on the neck joint 11 and is retained thereon by the flange 12. Imitation hair 14 covers the top of the head 13. Arms 15, only one arm being shown, of similar material are swingably mounted in socketed openings 10′ in the torso. The head is formed with eye sockets 16 and in each eye socket is fixed an eyeball 17. Each eyeball has a movable eyelid 18 carrying eyelashes 19 and a movable iris 20 movable in the eye socket. A layer of sponge rubber 20′ covers the rear and top of each eyeball. A

mouth 21 is formed with a small central perforation 22.

An elongated rubber bulb 23 is suspended inside the torso and centrally thereof and the means of suspension includes a cylindrical valve body 24 fastened to the bottom end of a pair of plastic conduits or pipes 25 and 26. The neck of the bulb is slipped over the cylindrical body of the valve and is held thereon by the elasticity of the material of the bulb. The other ends of the conduits extend upwardly through the opening in the neck joint 11 and into the head where each is slipped over and connected to the straight end 27 of a metal tubular member, the other end 28 of the tubular member being curved, conforming to the curvature of the eyeball and terminating in an outlet 29 embedded in the sponge layer 20′. The valve body 24 is formed with closely spaced vertically disposed socket openings 30 and 31 extending through the housing adjacent the periphery thereof into which socket openings the bottom ends of the conduits 25 and 26 are fitted. The socket openings having restricted passages 32 which communicate with the interior of bulb 23. The bulb is adapted to hold a substantial quantity of water or other liquid L.

Another pipe 35 of plastic material and of a color contrasting to the color of the conduits 25 and 26, preferably a red color, has one end snugly seated in a socketed opening 36 in the center of the body 24 of the valve. The other end of the pipe extends upwardly through the opening in the neck joint 11 and has its other end bent laterally and extending toward the mouth 21 of the doll head where it is connected to an inward tubular extension 37 formed integrally with the mouth around the perforation 22 therein. The latter end of the pipe is inclined slightly downwardly to permit the liquid to fall downwardly therethrough by gravity.

The valve body 24 is formed with an integral cylindrical extension 40 centrally thereof, extending downwardly into the bulb 23. Extension 40 is closed at its bottom end and is formed with a passage 41 therethrough communicating with the interior of the center opening 36 in the body of the valve and terminating short of the closed bottom end of the extension. Passage 41 is offset from the center of the socket opening 36 thereby providing a shoulder 42 seating the bottom end of the pipe 35. The free bottom end of the extension 40 is formed with a transverse cut 43, which cuts through said extension and passage therein substantially entirely across the same, leaving only a small area uncut as indicated at 44. The cut defines a disc-shaped flap 49 therebelow, the uncut area constituting a hinge for said flap. The outer end of the flap 49 is enlarged in the form of an annular flange 50 and the outer surface of the flap is dished or concaved as indicated at 51. The flap is normally in closed position, that is, in a position engaging the extension 40 sealing off the bottom of the passage 41 in the extension.

Another vertically disposed socket opening 45 is formed in the valve body 24 adjacent its periphery at a point opposite the socket openings 30 and 31. Socket opening 45 extends through the body of the valve communicating with the interior of the bulb and has a restricted passage 47 at its bottom similar to the passages 32 in the other sockets.

The torso at its rear bottom end has a small opening 48 in the wall thereof, and has side socket openings 52 for legs not shown.

In use, the liquid will be supplied through conduit 35 from a suitable supply such as from a bottle or the like, not shown. The water on its passage downwardly through the valve body 24 will impinge against the flap 49 and the force and weight of the water will move the flap downwardly thereby opening the bottom end of passage 41 and the water will flow over the flap into the interior of the bulb 23. Upon squeezing the torso 10, in the direction

of the arrows in Fig. 2, the bulb **23** will be compressed, forcing the water upwardly and the upward thrust of the water against the enlarged concaved surface **51** of the flap will force the flap **49** upwardly sealing off the bottom end of passage **41**. The water in the bulb will escape out through the restricted passages **32** in the socket openings **30** and **31** and through the conduits **25** and **26** to the tubular members **27** and through said tubular members onto the sponge layers **20'**. Liquid is prevented from exuding from the mouth opening by the valve flap **49**. When the sponge layers become saturated, drops of water, in imitation of tears, will drop downwardly over the eyelids and face of the doll head. At the same time, water will also be forced through the restricted opening **47** in the socket opening **45** and from the top end of said opening **45** the water will flow in a small trickle down over the bulb and to the bottom closed end of the torso. When the level of the water in the bottom of the torso reaches the opening **48**, the water will trickle out through said opening in the usual manner of the wetting doll.

While we have illustrated and described the preferred embodiment of our invention, it is to be understood that we do not limit ourselves to the precise construction herein disclosed and that various changes and modifications may be made within the scope of the invention as defined in the appended claim.

Having thus described our invention, what we claim as new, and desire to secure by United States Letters Patent is:

A doll comprising a hollow torso of yieldable, elastic or resilient material, a head connected to said torso, said head having a mouth opening and simulations of eyes therein, a compressible receptacle containing liquid mounted in said torso to be compressed by applying yielding pressure to the torso adjacent said receptacle, a pipe connecting said receptacle and mouth opening, for supplying liquid from said mouth opening to said receptacle, a flap valve associated with said pipe for permitting liquid to flow therefrom by gravity into said receptacle but preventing return of said liquid through said pipe, said head having eye sockets, eyeball members in said sockets, said eyeball members each having a layer of liquid saturable material therearound extending over the simulated eyes, and means for conveying liquid from said receptacle to said layers by compression of the receptacle, said liquid falling in drops by gravity from said layers over the simulated eyes in simulation of crying-tears, said receptacle being a rubber bulb, said means for conveying liquid from the rubber bulb to the layers on the eyeballs including a pair of pipes connecting the bulb with the simulated eyes in the head of the doll, said flap valve including a cylindrical flexible plastic one-piece valve body closing the neck opening in said bulb, said valve body having a central opening receiving one end of the pipe connecting the bulb and said mouth opening for supplying liquid from said mouth opening to said bulb, said valve body having a pair of closely spaced openings therethrough adjacent its periphery receiving the ends of the pair of pipes connecting the bulb and layers of liquid saturable material over the eyes, said valve body having a depending integrally formed cylindrical extension, said extension having a central opening communicating with the central opening in the valve body, said extension being cut transversely adjacent its bottom closed end, said cut terminating short of the periphery of the extension at one side thereof providing an uncut area serving as a hinge for the closed end of the extension therebelow, said latter closed end constituting a valve flap operable by the flow of liquid in the central pipe.

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