Sept. 21, 1954 G. H. FREELAND 2,689,430

SOUNDING WETTING DOLL

Original Filed Oct. 29, 1948

Fig. 1.

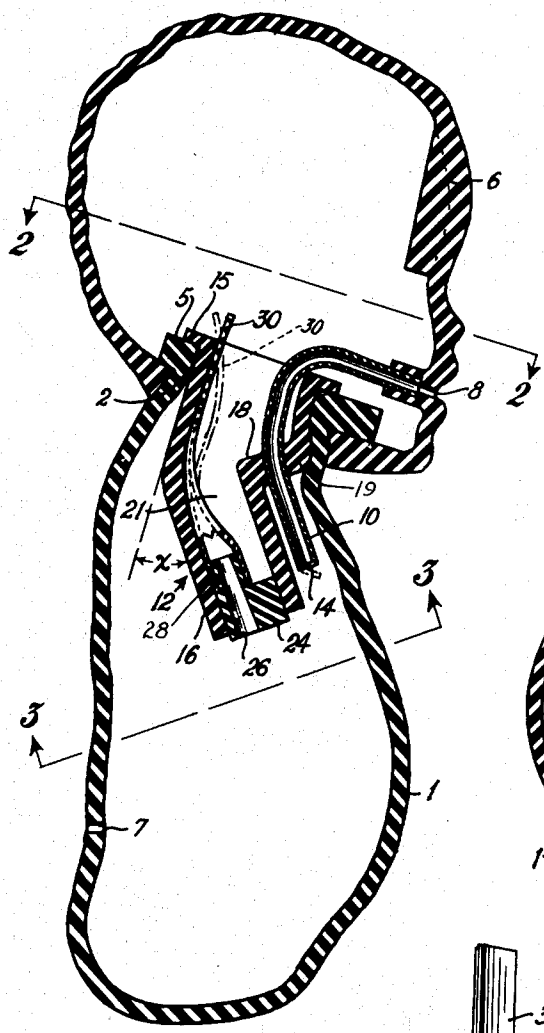


Fig. 2

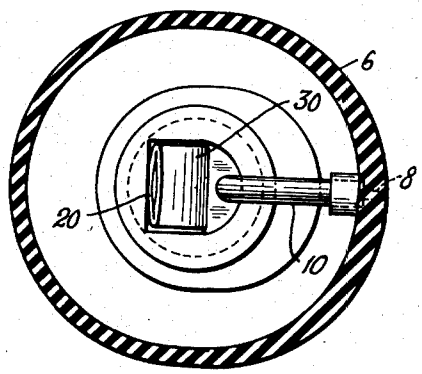
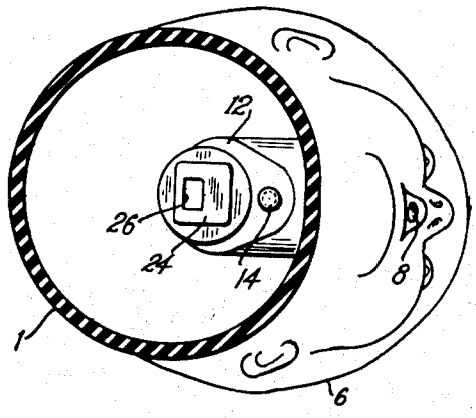


Fig. 3.



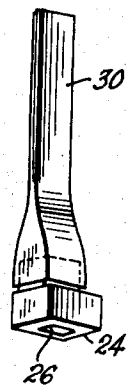


Fig. 4.

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SOUNDING WETTING DOLL

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4 Claims. (Cl. 46—117)

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The present invention relates to the construction of toys made of rubber or like material and equipped with a noise making device in conjunction with wetting features, which are very popular in dolls. The invention is not limited to the use of any particular type of noise making device.

Noise making devices such as simulate a cry or burp are usually air actuated and are created by squeezing the doll body so that air ejected therefrom will pass through the noise maker. A doll which is equipped with the wetting feature is provided with a water-conducting tube leading from the mouth and discharging into the body, a small vent being provided in the lower portion of the torso through which the water will pass to create the wetting.

In dolls equipped with a wetting tube and with an air actuated noise maker some means are required to insure that when the body is squeezed the air will pass out through the noise maker and not through the wetting tube. This invention is directed to the combination of a doll having a wetting tube and an air actuated noise making device and valve means which will permit the inward passage of water and air through the wetting tube but which will close when pressure is exerted on the body and shunt the air through the noise maker.

The combination covered hereby is not limited to any particular type of noise maker as the noise maker may be a reed, or a whistle, or any type of air actuated device to simulate any other noise.

It is quite an attraction for children to have a doll or other toy which will both wet and create a sound simulating a cry or a "burp," or any other noise, and the present device is one which permits an air actuated noise making device to be used together with the wetting feature.

The novel combination shown and described herein is illustrative of one form of the invention only and it is not intended that the invention should be limited to conformity with the details shown or to the "burping" device as the noise maker. This application is a division of applicant's prior application Serial No. 57,145, filed October 29, 1948, now abandoned.

In the drawings:

Fig. 1 is a vertical section taken through a doll constructed to accomplish the purposes of the invention;

Fig. 2 is a section on the line 2—2 of Fig. 1;

Fig. 3 is a section on the line 3—3 of Fig. 1; and

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Fig. 4 is a perspective view of the burping element removed from its holder.

In the drawings, a standard form of doll torso is indicated by the numeral 1, the limbs being omitted. The upper or neck portion of the torso is provided with a throat or passage 2 in which the noise making device, here shown as a burping unit, is located. Around the upper edge of the torso a heavy flange 5 is located to receive the lower portion of the head 6 which is loosely fitted thereover, thus providing for a limited turning movement of the head as is well known in doll constructions. This arrangement also permits the noise making unit to be inserted in the neck of the torso before the head is assembled therewith.

The torso 1 is usually made of rubber so that it can be squeezed to eject air from the body. A small opening 7 is located in the lower part of the torso so that water, which is fed to the doll through the mouth 8, may escape and thus the act of wetting will be simulated. Water is given to the doll through the mouth, usually from a toy nursing bottle, and from the mouth is conducted into the body of the torso by a flexible tube 10. The tube 10 is fixed in the head behind the mouth 8 and passes through a holder or housing located in the neck and indicated as a whole by the numeral 12. At the lower end of the tube 10 is located a one-way valve, here indicated as a flutter valve 14, which will permit the passage of water through the tube 10, but will close to prevent egress of air through the tube so that when the body is squeezed the air must pass out through the burping device to be described, it being noted that the hole 7 is so small as not to interfere with the operation of the burping device.

The housing or holder 12 is also preferably made of rubber, the upper edge of the holder having a flange 15 which rests against the flange 5 on the upper edge of the torso 1. The holder is hollow as shown and extends into the interior of the torso for some distance and then turns at an angle to the upper part of the holder so as to provide an angular extension 16. This extension is somewhat reduced so that an offset 18 is provided through which the tube 10 is passed. A protrusion 19 may be provided to fit in the neck of the doll and serves to anchor the holder in position. The holder may also be cemented in position if desired.

The rear wall 20 of the passage through the holder is flat and this flattened surface extends to the lower end of the passage 21, which is

closed by a plug **24**. The plug **24** has a reduced passage **26** and this passage is extended into a projection **28** over which is fitted the noise making device here shown as the lower end of the long, flexible flutter tube **30** which creates the noise as the air is forced through it. The flutter tube **30** is formed of a high grade rubber stock and is very flexible. The walls of the tube normally lie in substantial face to face contact, but will spread apart to permit the passage of air. When the device is assembled, a coating of cement will hold the plug in place in the lower end of the holder.

The main body of the flutter tube lies against and in close contact with the rear wall **20** so that a definite angular bend is located at a midway point in the tube. The upper end of the tube will usually extend slightly beyond the flange **15** so that the noise comes out of the throat of the doll.

As explained in the prior application with reference to the construction of a burping device, the angle between the two portions of the wall **20**, or that indicated by the letter x on Fig. 1, is very important for the achievement of the results as this angle has a direct effect upon the noise created. If, for example, there is no bend in the flutter tube **30**, or if the angle x is too small, the air will pass through the tube creating a noise but not one which resembles the noise of a burp. If, on the other hand, the angle is too great, the air will not pass out through the tube. What is desired is the intermittent expulsion of the air which is marked by the passage of the air in large bubbles and which creates the sound of a burp.

It has been found that the angle x must be at least as great as 25°, or thereabouts, and that it should not exceed 35° or 40°. As the angle x approaches 45°, the tube **30** will exhibit a tendency to remain closed and air will not be emitted through the tube but will find some other exit from the interior of the torso. The operative range has been determined as a result of considerable experimentation to achieve the desired results. With a flutter tube of the type specified and with the angular displacement within the range specified, noises closely simulating the burping noise made by an infant will be produced upon squeezing the doll.

It will be seen that by the construction and combination of elements shown herein, there has been created a doll which not only drinks and wets but also has an air actuated noise making device therein which will operate with the drinking and wetting feature. The invention is not limited to any particular type of doll but includes the novel form of accessory by which any type of doll may be converted into a drinking, wetting, and noise making doll.

What is claimed is:

1. A doll comprising a hollow compressible torso having a neck portion, a head on the neck portion, a housing seated in and closing the neck portion, an air-actuated sound making device in the housing and in communication with the interior of the torso, said sound making device being adapted to create sound by egress of air from the torso, an orifice in the head, a water conducting tube in the orifice extending through the housing and discharging into the interior of the torso, a one-way valve in the tube opening inwardly to permit flow of water into the torso but preventing flow of air outwardly of the tube, and a restricted outlet for water in the torso.

2. A doll comprising a hollow compressible torso, a head on the torso, an orifice at the mouth of the doll, a water conducting tube in the mouth and extending into the torso, a restricted water outlet in the torso, a one-way valve in the tube opening inwardly to permit flow of water into the torso but closing to prevent air from flowing outwardly of the tube on compression of the torso, and an air-actuated noise maker communicating with the interior of the torso and actuated by the expulsion of air from the torso.

3. A doll comprising a hollow compressible torso, a hollow head on the torso, an orifice at the mouth of the doll, a water conducting tube in the mouth and extending into the torso, a restricted water outlet in the torso, a one-way valve in the tube opening inwardly to allow water to flow into the torso and closing on compression of the torso to prevent air from flowing outwardly of the tube, and an air-actuated noise maker communicating with the interior of the torso and discharging into the head and actuated by expulsion of air from the torso.

4. A doll comprising a hollow compressible torso, a head on the torso, an orifice at the mouth of the doll, a water conducting tube in the mouth and extending into the torso, a restricted water outlet in the torso, an air-actuated noise maker communicating with the interior of the torso and actuated by air expelled from the torso, and valve means to allow flow of water through the tube into the torso but operative to prevent air from flowing outwardly through the tube on compression of the torso.

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