

Sept. 29, 1953

G. W. BELTZ

2,653,411

DRINKING AND WETTING DOLL WITH SOUND EFFECTS

Filed Feb. 24, 1949

2 Sheets-Sheet 1

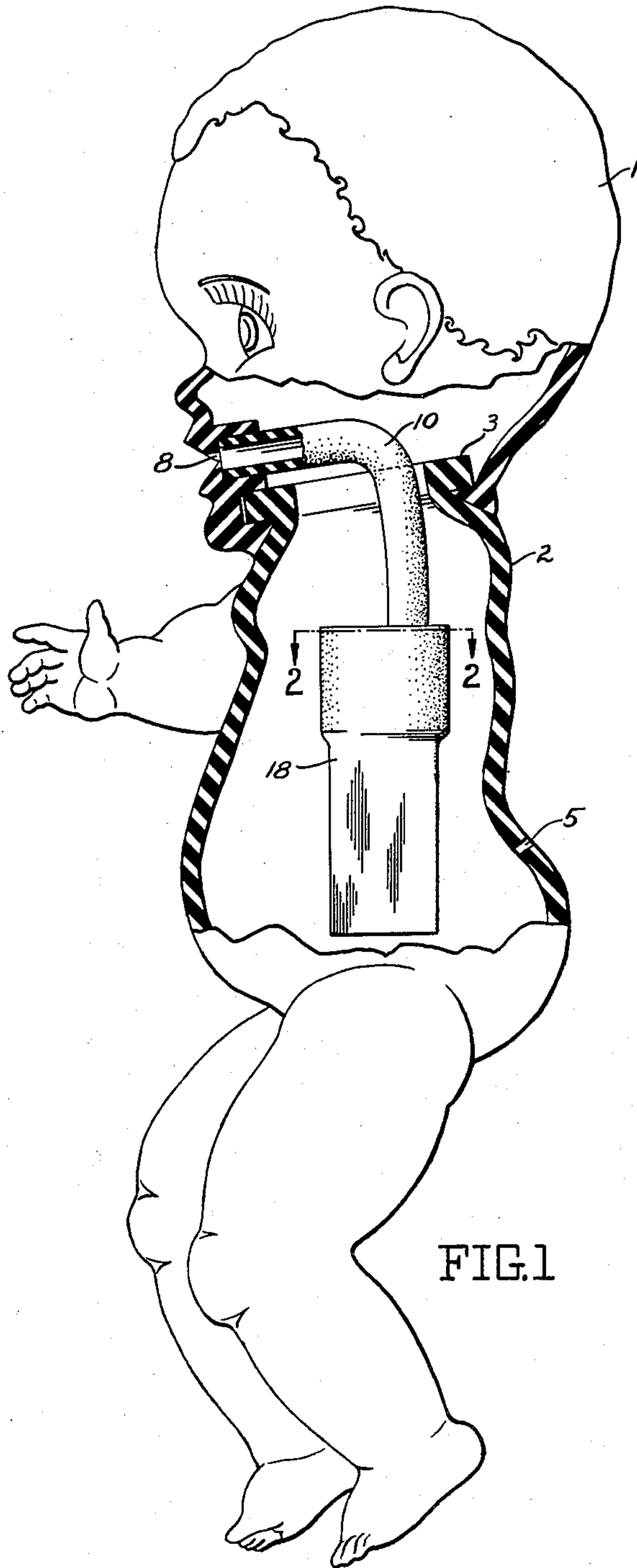


FIG. 1

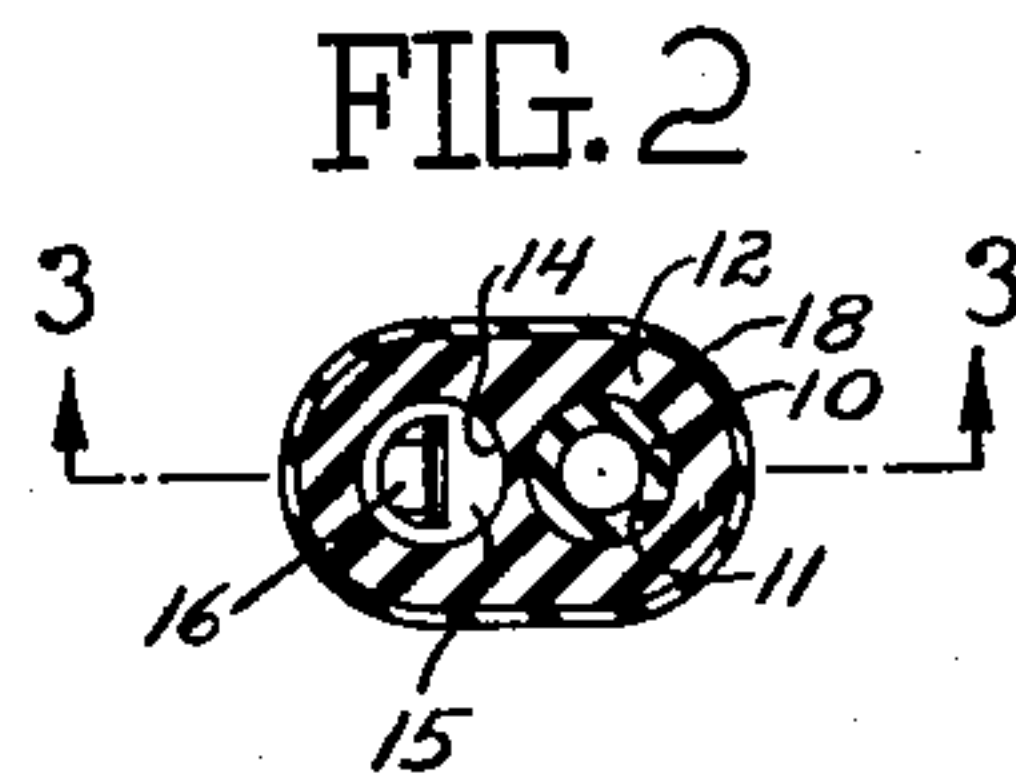


FIG. 2

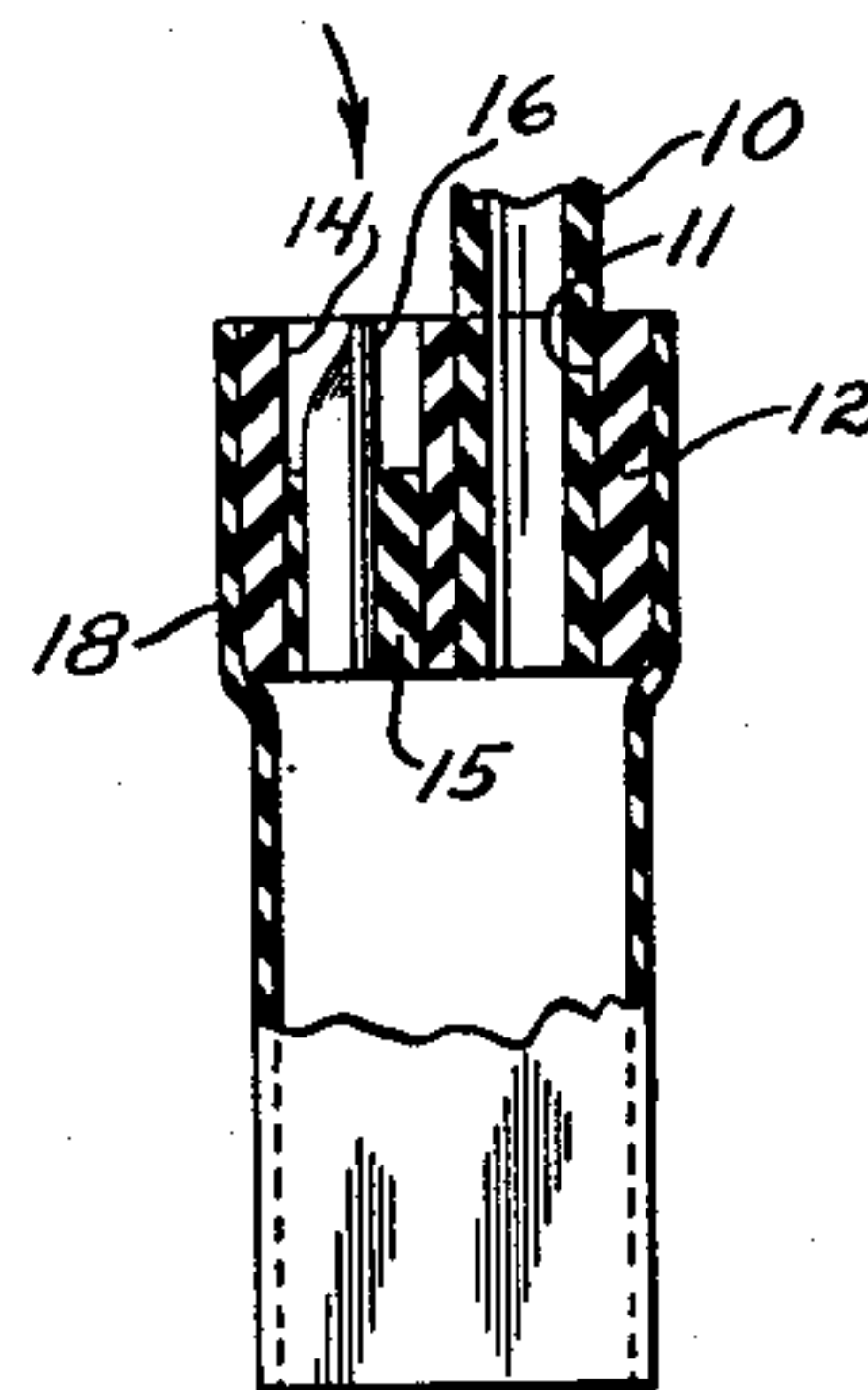


FIG. 3

INVENTOR.
GEORGE W. BELTZ

BY

Ely & Faye

Attorneys

Sept. 29, 1953

G. W. BELTZ

2,653,411

DRINKING AND WETTING DOLL WITH SOUND EFFECTS

Filed Feb. 24, 1949

2 Sheets-Sheet 2

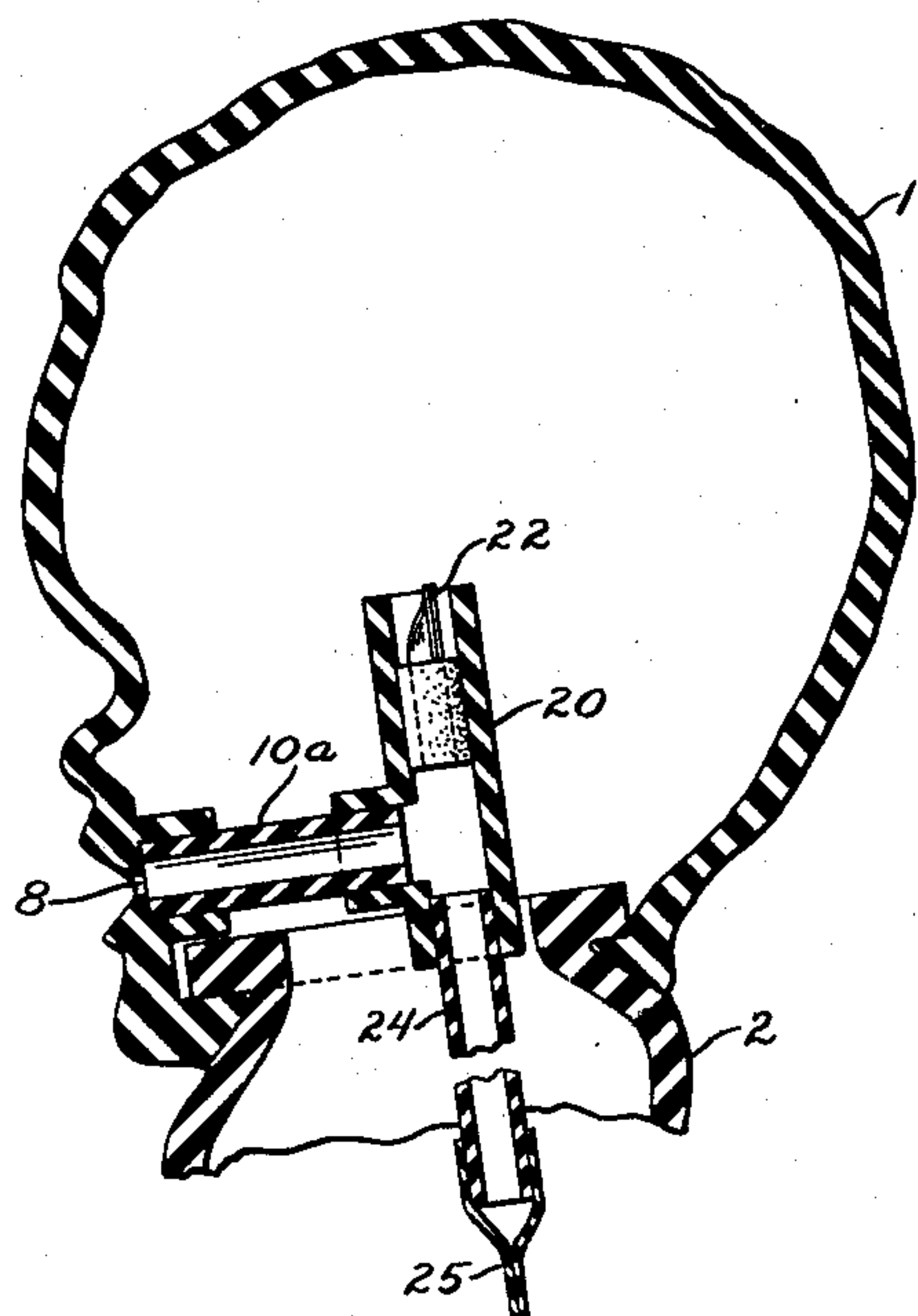


FIG. 4

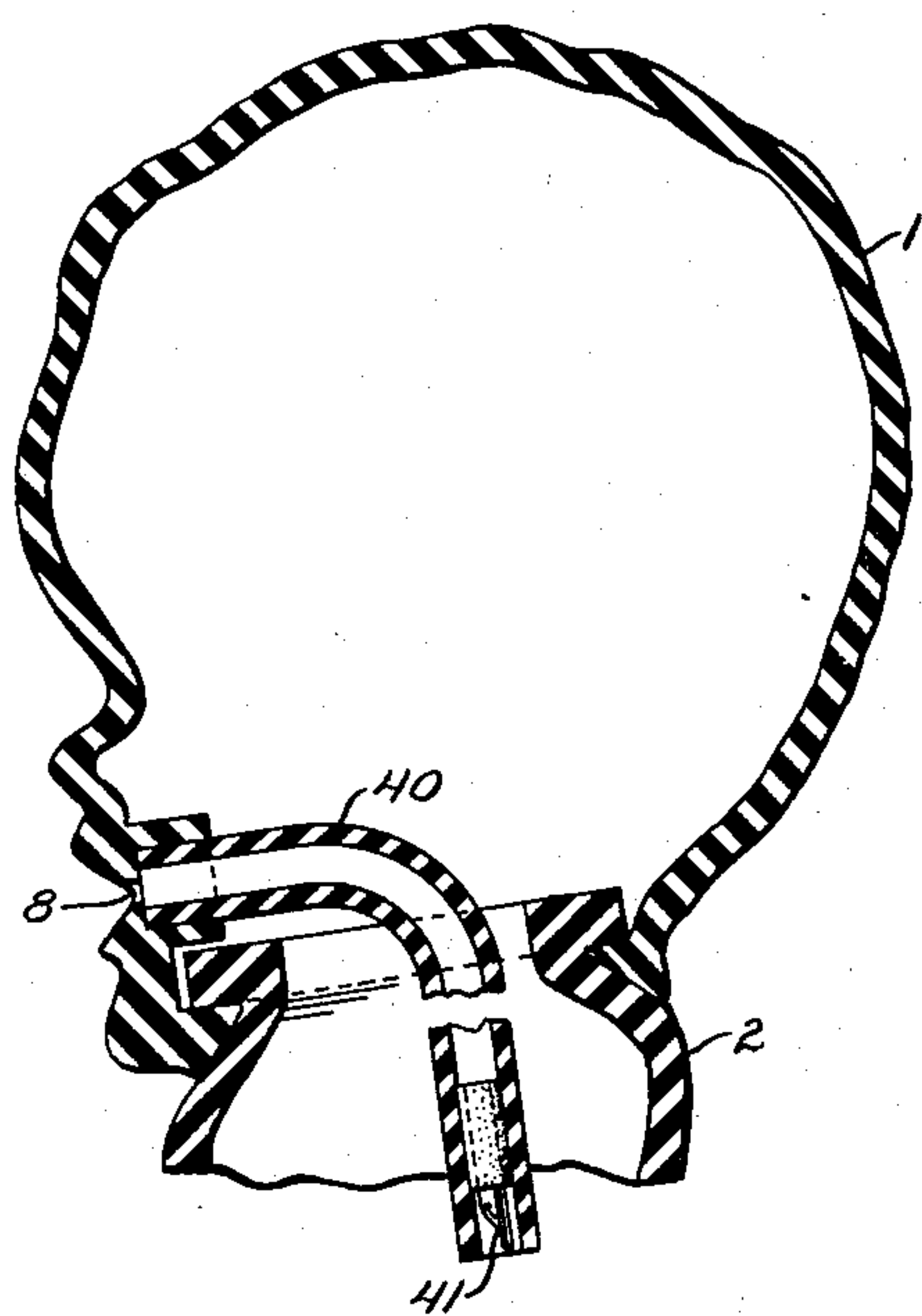


FIG. 5.

INVENTOR.
GEORGE W. BELTZ

BY

Ely & Faye
Attorneys

UNITED STATES PATENT OFFICE

2,653,411

DRINKING AND WETTING DOLL WITH
SOUND EFFECTSGeorge W. Beltz, Cuyahoga Falls, Ohio, assignor
to The Sun Rubber Company, Barberton, Ohio,
a corporation of Ohio

Application February 24, 1949, Serial No. 78,109

7 Claims. (Cl. 46—117)

1

The present invention relates to a new and improved construction of doll which will achieve certain novel results in a new and improved manner.

Drinking and wetting dolls have been known heretofore and dolls which give out a noise simulating a baby's cry are quite common, but, so far as is known, there has not as yet been produced dolls which perform all the acts of drinking, wetting, and crying. This has been because of the difficulties which have been encountered in combining the drinking-wetting effects with the crying effect.

The most common type of sound-making device which gives out a crying noise when the doll is squeezed is an ordinary reed of the correct pitch. This reed usually makes the noise upon the forced passage of air out of the doll's body on squeezing. Drinking and wetting dolls have a tube leading from an opening in the mouth to a point in the lower part of the body where the water collects and passes out through a small aperture in the body.

The drinking tube will, unless provisions are made to prevent it, afford a passage for the air so that when the doll is squeezed the air will depart through the tube and bypass the reed so that no sound is created. Many types of reeds are also injured by water and it is desirable therefore to avoid contact of the reed and the water, and the preferred forms of the invention have been designed to keep water out of the reed. Further, if water collects or is held on the reed, the doll is incapable of making the crying noise.

It is also desirable to have it appear as though the crying sound issued from the doll's mouth. In the preferred forms of the invention shown herein, the drink tube is employed as the passage through which the air passes out of the doll, carrying the sound of the noise-maker with it so that the cry actually issues from the mouth of the doll. Not only is the cry of an infant reproduced but the sound is not muffled.

In the several forms of the invention shown herein, the objects as stated have been realized in various ways and in various degrees of perfection, it being the intention to illustrate several embodiments in which the invention may be carried out. Some of the forms are preferred over others, but it is the purpose not to confine the invention to any specific form shown herein as other methods of achieving the objects of the invention may be embodied in modifications and improvements. It is, therefore, to be understood that it is contemplated that changes and altera-

2

tions, and even improvements upon the invention, which do not depart from the scope thereof are comprehended in the appended claims.

In the drawings:

Fig. 1 is a side elevation of a doll in which parts are broken away to show the internal construction. This form shows the preferred and best known embodiment of the invention.

Fig. 2 is a section through the attachment to the drink tube which carries the sound-making device, this view being taken on the line 2—2 of Fig. 1.

Fig. 3 is a section through the attachment on the line 3—3 of Fig. 2.

Fig. 4 is a modified form of the invention.

Fig. 5 is a second modification, this form however being less desirable because of the fact that the reed is located in the drink tube and is therefore subject to the objection that the water passes through the reed or other noise-maker.

In the several views of the head of the doll is indicated at 1 and the torso at 2. The head which may be soft and compressible or made of a non-compressible material, is usually mounted so that it will swivel on the torso by the engagement of the underside of the head with a flange 3 on the neck. The torso 2 is hollow and compressible, being made of rubber or some of the well known plastic resins which may be substituted for rubber. At some point in the torso, usually near the buttocks, in all forms of the invention, a small hole is drilled as at 5 through which water will pass so that the doll will simulate the act of wetting. This aperture is small enough to that it does not permit sufficient air to pass through it to interfere with the noise making functions.

The mouth of the doll is made with an orifice 8 which is of a size to receive the nipple of a toy nursing bottle which the child uses to give the doll the water which it later expels through the orifice 5. In all forms of the invention a tube, preferably a flexible rubber tube indicated by the numeral 10, is set in the orifice 8 and extends into the torso, the tube being usually of sufficient length to reach to a point in the torso below the neck so that the water will find its way out of the hole 5. In Figs. 4 and 5, the tube is broken away to indicate that it may be of any length.

In the preferred form of the invention shown in Figs. 1-3, the lower end of tube 10 is inserted into an aperture 11 in a fitting in the form of a block 12 of rubber or the like. Alongside the tube is a second aperture 14 in which is cemented a rubber sleeve 15 which holds an ordinary reed

3

16, or other type of sound making device. The sound making device is set so that it functions to create the desired noise when the air flows into the upper end of the aperture 14, as shown by the arrow in Fig. 3.

Surrounding the block 12 is a soft rubber sleeve 18. This is a flattened tube, the upper end of which is expanded to fit snugly over the block and the lower end of which extends for a sufficient distance so that the flat sides of the sleeve are in contact for a substantial distance. This sleeve, therefore, acts as a one-way valve permitting the passage of water into the interior of the torso but closing when pressure is applied to the doll, either to the head or to the body.

It will be seen that water given through the mouth will pass down the tube 10 and out through the valve provided by the sleeve 18 and will not come in contact with the reed. When the doll is squeezed the valve 18 closes and the air passes through the reed and out through the tube 10, which creates the effect that the crying noise is coming out of the mouth. Air to reinflate the doll will pass inwardly through the tube 10 and into the torso through the reed or through the valve 18. The present construction does not muffle or deaden the sound for the air which passes through the sound maker is discharged through the mouth and this provides an unobstructed outlet for the sound.

The form of the invention which has just been described is the one which has been adopted by the assignee of this application for commercial production as it perfectly simulates the drinking, wetting and crying acts, does not muffle the crying sound, and the water is kept away from the reed or other noise making device.

In the form of the invention shown in Fig. 4, the tube 10 leading from the mouth orifice extends a short distance into the head, where it is inserted into one branch of a fitting in the form of a T-coupling element 20. One of the lateral branches of this fitting extends into the head and houses a reed or other sound making device 22 which receives air from the interior of the head when the doll is squeezed. The third branch of the coupling 20 extends into the neck where it is joined to a tube 24 which delivers water to the interior of the torso through a one-way valve 25. This valve is shown in the same form as the valve 18 in the preferred form.

This form of the invention is satisfactory as an alternative for the preferred form. It, however, has the objection that if the child gives water to the doll while in reclining position, the water is apt to flow out into the head through the reed.

In the form of the invention shown in Fig. 5, the drinking and wetting tube 40 is located in the mouth and extends into the torso to deliver water to the interior thereof. In this form the reed 41 is located in the tube and for this reason no valve is required to direct the air expelled from the body through the reed, but the construction is not so desirable as the water comes in contact with the noise maker. While the reed is shown in the position to create sound on the out-flow of air from the body, as in the other forms, its position may be reversed to create sound on the in-flow of air as the body is reassuming its normal shape. It is possible to insert two reeds, facing in opposite directions, and such an arrangement would create two distinct sounds on a single collapse and return of the doll. By

4

varying the pitch of the reeds, novel sound effects could be obtained. This same double reed may be incorporated in any of the other forms of the invention.

All of the forms of the invention have in common the combination of the drinking and wetting feature and the crying feature which is not muffled by the doll. All emit the sound through the mouth. In all forms of the invention the noise-making device receives air from the interior of the torso when the torso is collapsed and delivers the air to the mouth through the same tube by which water enters the torso from the mouth opening. It is therefore proper to say that the air-actuated sound maker is in uninterrupted communication with the water conducting tube and with the interior of the torso or that the air-actuated sound maker is in open communication with the interior of the torso and the water conducting tube. In all of the forms, except Fig. 5, the drinking-wetting tube is provided with a one-way valve which insures that the air which creates the noise will pass through the noise-maker and will not bypass it.

In all forms of the invention the reed noise-maker is not essential for any other type of air actuated sound maker may be substituted therefor. Also, other forms of one-way valves may be substituted for the form shown in the several views. Other changes and modifications will be suggested to those familiar with this art.

The doll shown and described herein is very attractive to children for it performs acts which simulate the natural functions of an infant more completely than any doll heretofore devised.

What is claimed is:

1. In a drinking-wetting doll construction the combination of a hollow compressible torso and a head on the torso, an orifice at the mouth, a water conducting tube leading from the mouth and discharging into the torso, an outlet for water in the lower region of the torso, and an air-actuated sound maker within the doll and operable by air expelled from the torso, said sound maker being connected to the water conducting tube and in uninterrupted communication with the water conducting tube and with the interior of the torso.

2. In a drinking-wetting doll construction the combination of a hollow compressible torso and a head on the torso, an orifice at the mouth, a water conducting tube leading from the mouth and discharging into the torso, a one-way valve on the tube adapted to open inwardly to permit the flow of water inwardly into the torso but preventing flow of air outwardly from the torso, an air-actuated noise maker operable by air expelled from the torso, a passage in which said noise maker is located, said passage being in uninterrupted communication with the interior of the torso and the interior of the tube at a point between the valve and the mouth, and an outlet for water in the body of the torso.

3. In a drinking-wetting doll construction, the combination of a hollow compressible body and a head on the body, a water conducting tube leading from the mouth and discharging into the interior of the body, an outlet in the body for water, a fitting on the tube having two passages, one of said passages being in free communication at one end with the interior of the body and at the other end with the water con-

5

ducting tube, an air-actuated noise maker in said passage, the other passage being adapted to conduct water which enters the mouth to the interior of the body, and a one-way valve on the fitting at the inner end of the second passage adapted to open inwardly of the body to permit flow of water into the body but to prevent passage of air outwardly from the body directly to the second named passage.

4. A combined drinking-wetting and crying doll comprising a compressible body and head having an orifice, a water conducting tube leading from the orifice to the interior of the body, a water discharge outlet in the body, an air-actuated sound maker connected to the tube and in open communication with the tube and the body so as to create sound waves on compression of the body which are carried by the tube to the orifice, and means in the tube at a point interiorly of the sound maker to permit flow of water from the tube to the interior of the body but to prevent air expelled from the body from bypassing the sound maker when the body is compressed.

5. A combined drinking-wetting and crying doll comprising a compressible body and head having an orifice, a water conducting tube leading from the orifice to the interior of the body, a water discharge outlet in the body, a one-way valve at the discharge end of the tube adapted to open inwardly to permit flow of water to the interior of the body to prevent direct egress of air from the body through the tube, and an air-actuated noise maker connected to the tube and having open communication with the interior of the body and with the tube at a point between the valve and the orifice.

6. A combined drinking-wetting and crying doll which is compressible, said doll comprising a body and a head having a mouth orifice, a water conducting tube leading from the mouth

6

orifice and discharging into the interior of the body, a fitting at the end of the tube, said fitting having a passage receiving the end of the tube, and a second passage, a sound maker in the second passage, said passages being in communication, and a valve on the fitting to permit fluid to flow from the tube to the interior of the body, said valve being constructed to close when the doll is compressed whereby the air in the interior of the doll is compelled to flow outwardly through the sound maker and through the tube.

7. A combined drinking-wetting and crying doll which is compressible, said doll comprising a body and a head having a mouth orifice, a water conducting tube leading from the mouth orifice and discharging into the interior of the body, a fitting at the end of the tube, said fitting having a passage receiving the end of the tube, and a second passage, a sound maker in the second passage, said passages being in communication, and a flattened flexible tube surrounding the fitting to constitute a one-way valve which permits the passage of fluid inwardly but prevents outward passage of air.

GEORGE W. BELTZ.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
2,022,107	Denivelle et al.	Nov. 26, 1935
2,080,439	Schaeffer	May 18, 1937
2,098,925	Schaeffer	Nov. 9, 1937
2,229,439	Brock	Jan. 21, 1941

FOREIGN PATENTS

Number	Country	Date
17,027	Great Britain	of 1895
432,650	France	Oct. 9, 1911
448,936	Germany	Sept. 2, 1927