

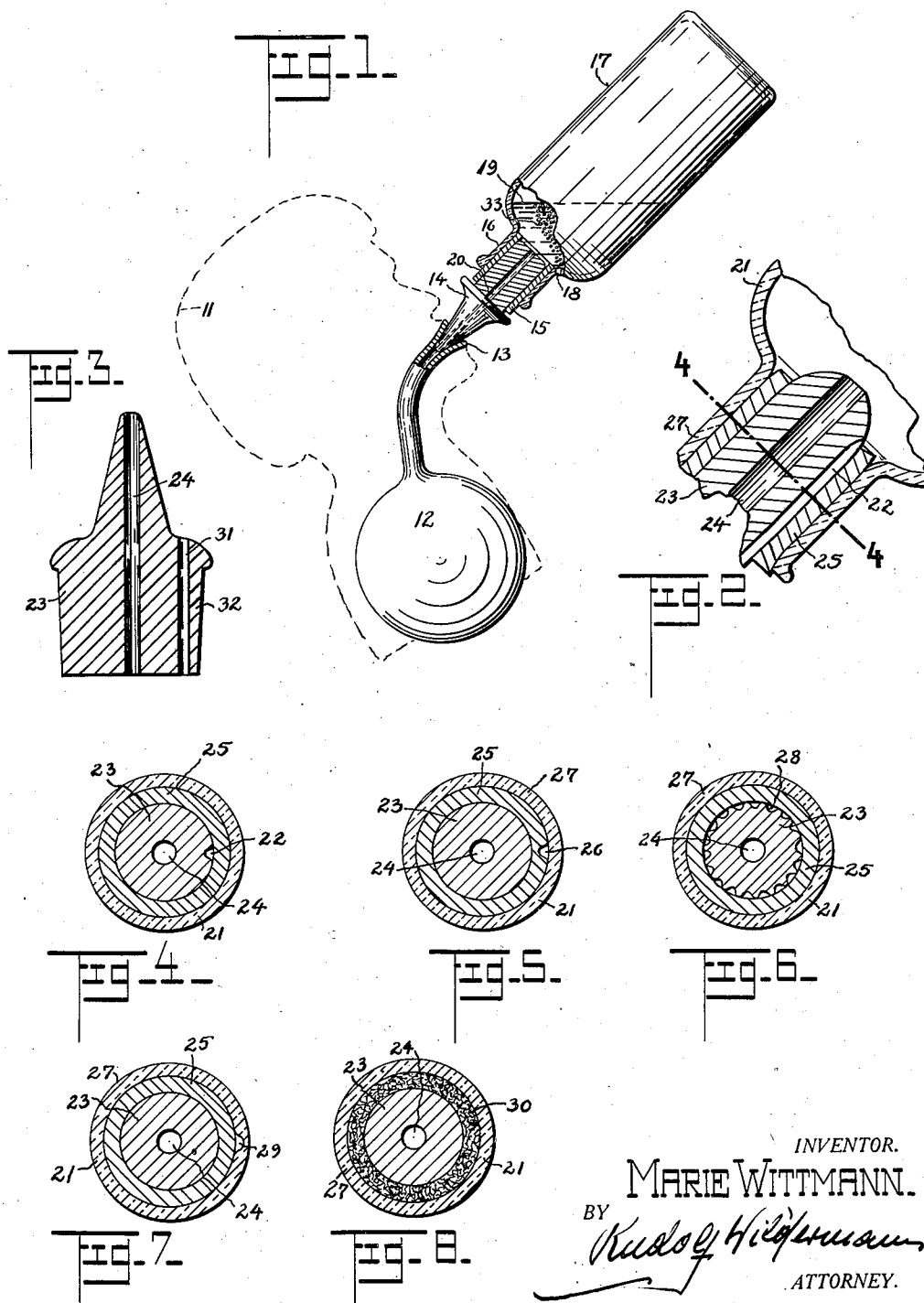
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TOY NURSING BOTTLE

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TOY NURSING BOTTLE

REISSUED

Application filed January 27, 1931. Serial No. 511,499.

My invention concerns a nursing bottle and in particular the means employed in connection therewith, which facilitate the emptying of such a bottle.

5 The principal object of this invention is to simulate in a toy the nursing of an infant by suitably relating the pressures in the toy nursing bottle and in the suction means.

10 It is a further object of my invention to admit air to the nursing bottle at a very slow speed while suction is applied thereto from the toy simulating the baby to be nursed.

15 Another object of my invention is to simulate by means of an auxiliary opening in a toy nursing bottle the admission of air, as it is brought about from the nipple during the real nursing operation.

20 A further object of my invention is to simulate by the admission of air to the bottle through an auxiliary opening, the suckling noise.

25 A further object of my invention is to provide an auxiliary opening in a nursing bottle, the admission of air through which may be adjusted and which thereby permits a variation in the speed of operation of the toy by a variation in said opening.

30 Other objects of my invention will become apparent from the perusal of the following specification and of the appended drawings in which

35 Fig. 1 shows, in a partly sectioned side view, the arrangement of a toy nursing bottle, as applied to a toy mammal equipped with sucking means.

Fig. 2 shows a sectional, sectioned side view of the inlet of my improved bottle.

40 Fig. 3 shows a cross-sectional side view of a modified stopper, as used with my improvements.

Fig. 4 shows a cross-section through the neck of the bottle of Fig. 2.

Figs. 5, 6, 7 and 8 show, in similar views, various modifications of my invention.

45 Similar numerals refer to similar parts throughout the various views.

50 The doll 11 shown in Fig. 1 is equipped with pneumatic means 12 which are hidden upon the inside of the doll and which issue from the doll through the mouth thereof,

through an outlet 13. By compression or release, the pneumatic means 12 push the contents of the pneumatic means out through the outlet 13, or suck in whatever is applied to said mouth. The pneumatic means are 55 preferably elastic where they extend through the mouth at the outlet 13 so that the nipple 14 of the bottle may be tightly inserted thereinto.

By means of an elastic bushing 15 the nipple 14 fits tightly into the neck 16 of the toy nursing bottle 17. A small opening 18 is 60 provided in the bottle at the base of the neck.

When the toy nursing bottle is brought into an operative position and suction is applied 65 thereto by means of the pneumatic means 12, air will enter through the opening 18 into the bottle and will rise in the form of small bubbles 33, through the liquid 19, which is drawn from said bottle through the fine hole 70 20 longitudinally extending from the nipple or plug 14 into the outlet 13 of the pneumatic means.

The toy nursing bottle 21 of Fig. 2 is not 75 provided with an opening in said bottle but a slot or groove 22 is provided upon the side of the plug 23, air entering upon said bottle through the groove 22 from the outside of the bottle, while the liquid contained in the 80 bottle is being evacuated through the opening 24 in the plug by means of the suction means applied to the outer end of the plug. The tapered plug 23 is fitted into the neck of the bottle 21 by means of an elastic sleeve 85 25, which extends more or less into the groove 22 according to whether the plug is pushed more or less tightly into the neck of the bottle. Thus the cross-section of the groove 22 may be made larger or smaller and the speed 90 of the evacuation of the bottle may thus be regulated, that speed depending to a large measure upon the speed at which air can pass through groove 22 into the bottle.

95 In order to bring about a variation of the cross-section of the groove 22, either the plug 23 may be tapered, or the inside of the neck 27 or the sleeve 25, or a pair or all of these parts.

100 In the modification of Fig. 5 a groove 26 is shown in the elastic means 25, instead of be-

ing shown in the plug 23. In this instance also, the cross-section of the groove 26 may be varied by a more or less tight insertion of the plug 23 into the neck 27 of the bottle.

- 5 It is not necessary that an outspoken groove is provided upon the outside of the plug as shown in Fig. 4. Admission of air to the bottle between the plug 23 and the sleeve 25 may be caused by various kinds of irregular shaping of the surface of the plug. Thus for instance, a plurality of longitudinal ridges 28 may be provided upon the plug, which provide a plurality of small openings through which air may enter upon the bottle.
- 10 Such ridges may equivalently be provided upon the inside or outside of the sleeve 25 instead of being provided upon the circumference of the plug 23.

- In the modification of Fig. 7, I show a groove 29 extending from the outside into the bottle longitudinally upon the inside of the neck 27 of said bottle. By a setting of plug 23, the elastic means of sleeve 25 may be pushed more or less into the groove 29, thus making the cross-section of the groove 29 smaller or larger.

- In the modification of Fig. 8, I show porous elastic means 30 as a sleeve extending between the plug 23 and the neck of the bottle 27. They may be made of any kind of a sponge through which air may pass between the plug 23 and the neck 27 and the amount of air which can pass therethrough may be regulated by a more or less tight fitting of the plug 23 into the neck 27 of the bottle.

- When the plug is elastic, or fits the neck of the bottle in such manner that it retains its position therein, the sleeve 25 may be dispensed with; a plug of that kind is shown in Fig. 3. An auxiliary opening 31 extends through the length of the plug and serves in this instance for the admission of air. The tapering of the circumference of the plug is more accentuated in this instance, as shown at 32. When the plug is elastic, the cross sections of the openings 24 and 31 are varied according to whether the plug is pushed more or less tightly into the neck of the bottle.

- The hole, through which the air is let into the bottle, is arranged in such proximity of the outlet opening, that it is submerged under the contents of the bottle substantially as long as said outlet opening is submerged under said contents for the purpose of withdrawing the contents from the bottle, it appearing to the observer that bubbles, arising from said inlet through the contents of the bottle, issue from said outlet opening.

- At the same time the outlet and inlet openings are so far removed from each other, that the air entering through said inlet is not drawn into said outlet by the contents issuing from the bottle through the outlet.

- While I have shown and described my invention with some degree of particularity, it

will be realized that other modifications and changes may be resorted to under special conditions. I therefore do not wish to be limited and restricted to the exact details shown and described but reserve the right to make such changes and modifications as may fairly fall within the scope of the subject matter now being claimed.

I claim:

1. In a toy, a body member having a mouth opening, a receptacle situated within said member and connected with said opening, a bottle having an elongated neck, a plug within said neck, said plug fitting into said opening, and an air passage formed at least partly by a groove in said bottle neck and leading into the interior thereof.

2. In a toy, a body member having a mouth opening, a receptacle situated within said member and connected with said opening, a bottle having an elongated neck, a plug within said neck, said plug fitting into said opening, and an elastic sleeve surrounding said plug, a part of said sleeve and said bottle combining to form an air passage leading into the interior of said bottle.

In testimony whereof, I have signed my name to this specification, this 26th day of January 1931.

MARIE WITTMANN.