Dec. 21, 1954 E. L. MAYNARD 2,697,303

DOLL MOUTH STRUCTURE

Filed Aug. 22, 1952

FIG. 1

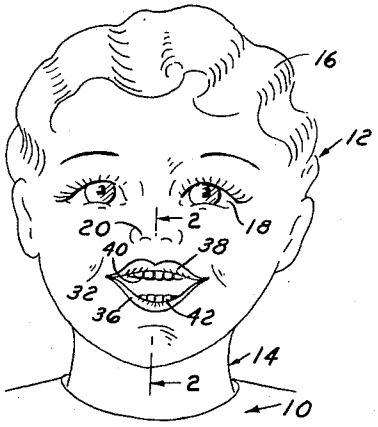


FIG. 5

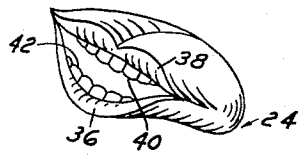


FIG. 2

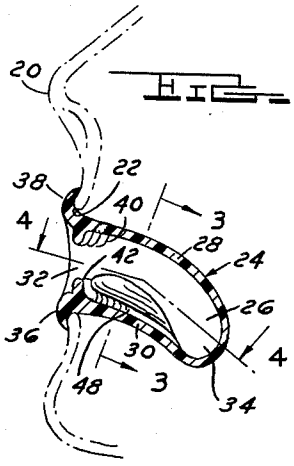


FIG. 3

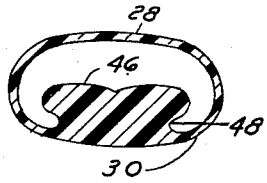
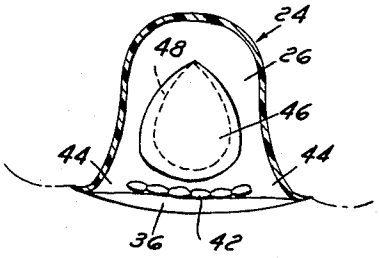


FIG. 4



INVENTOR.
ESTHER L. MAYNARD
BY
Barnes, Kisselle, Laughlin & Raisch
ATTORNEYS

United States Patent Office 2,697,303 Patented Dec. 21, 1954

2,697,303

DOLL MOUTH STRUCTURE

Esther L. Maynard, Ferndale, Mich.

Application August 22, 1952, Serial No. 305,744

7 Claims. (Cl. 46—171)

This invention relates to a doll.

It is an object of the invention to provide a doll having a mouth construction which includes teeth which are adapted to be brushed by a child so that the child will acquire the habit and desire to brush its own teeth.

A further object of the invention is to provide a doll having a head construction which includes a mouth opening and an oral cavity closed at its inner end and teeth formations in the mouth opening which are designed to be brushed, the water resulting from such operation being arranged to drain into the oral cavity and subsequently discharged therefrom by tilting the doll's head forwardly.

In the drawings:

Fig. 1 is a fragmentary front elevation of a doll embodying the present invention.

Fig. 2 is a sectional view along the lines 2—2 in Fig. 1.

Fig. 3 is a cross sectional view of the mouth insert taken along the lines 3—3 in Fig. 2.

Fig. 4 is a sectional view of the mouth insert taken along the lines 4—4 in Fig. 2.

Fig. 5 is a perspective view of the mouth insert.

Referring to the drawings, there is illustrated a doll having a body portion 10 and a head 12 connected with the body portion by a neck 14. The head 12 may be fixed with respect to the body portion 10 or, if desired, the neck 14 may provide an articulated joint therebetween. The head 12 is preferably hollow and molded from rubber, plastic or any material that has a substantial degree of rigidity and can be washed without harmful effect. Accordingly, the head 12 is molded with a contoured portion 16 simulating hair, eyes 18 which can be constructed to open and close, if desired, and a nose 20. Just below the nose 20 there is formed in head 12 a mouth opening 22. The mouth opening 22 is sufficiently large to represent a doll with a relatively widely opened mouth.

Mouth opening 22 is closed by an insert 24 preferably molded from plastic, rubber or the like. Insert 24 is in the nature of a generally elongate oral cavity 26 provided with a top wall 28 and a bottom wall 30 which slope generally downwardly from the open end 32 of the insert 24 towards the closed end 34. At its open end the insert 24 is fashioned with peripheral out-turned flanges 36 and 38 which simulate, respectively, lower and upper lips for the doll. The lips 36 and 38 overlap the edges of opening 22, and the insert 24 can be secured in the head of the doll by cementing around the opening 22 or by other suitable means.

Spaced inwardly of lips 36 and 38 the top and bottom walls 28 and 30, respectively, of insert 24 are molded with teeth formations 40 and 42. The teeth formations 40 and 42 extend in a lateral direction an extent less than the width of the open end 32 of insert 24. Thus, there is provided between the end tooth in each formation and the adjacent side edge of insert 24 a clearance space 44. On the lower wall 30 there may be molded at a position slightly behind the lower teeth 42, a tongue formation 46. The tongue formation 46 is undercut around the lower side thereof as indicated at 48 so that water can flow therearound to the lower end 34 of insert 24. It will be observed that the end 34 is disposed at a level lower than the clearance spaces 44 at each end of the lower teeth formations 42.

In addition, it will be noted that the lower lip 36 extends from the base of the lower teeth 42 in a direction generally outwardly and downwardly. Likewise, the upper lip 38 extends from the base of teeth 40 in a direction generally outwardly and upwardly. Thus, the entire front faces of the teeth 40 and 42 are substantially completely exposed and accessible for brushing. The teeth 40 and 42 are also spaced apart vertically so that there is provided a substantial opening therebetween. The spacing apart of the teeth in a vertical direction is desirable not only for the purpose of providing sufficient clearance for brushing the front of the teeth but also to provide sufficient clearance to permit insertion of the toothbrush therethrough so that the child may brush the backside as well as the front of the teeth 40 and 42.

It is appreciated that, with respect to the backsides of these teeth, the child will not be able to brush them with the facility that the frontsides of the teeth can be brushed. However, by providing the necessary clearance between the upper and lower teeth to enable the child to insert a toothbrush into the mouth of the doll, it will acquire the habit of brushing its own teeth both on the inside and on the outer sides thereof.

In brushing the doll's teeth, the head 12 of the doll will be tilted slightly rearwardly so that the water and dentifrice on the brush will flow around the end of the teeth formations 42 through the clearance spaces 44 and then downwardly and around the undercut portion 48 of the tongue 46 to the lower end 34 of the insert 24 where it will accumulate until the brushing operation is completed. Thereafter, the doll's head can be tilted forwardly to discharge the water accumulated at the lower end of insert 24, and in this position the doll's mouth can also be rinsed, if desired.

Thus, it will be seen that I have provided a doll which is designed such as to be very conducive in teaching children to acquire the habit of brushing their teeth. The design is furthermore such that the doll's teeth can be brushed in a very sanitary way and without the possibility of water dripping from the doll's mouth while the teeth are being brushed.

I claim:

1. A doll having a head provided with an opening in the face thereof, an insert for closing said opening, said insert comprising a generally cup-shaped member having a rim portion around the open end thereof overlying the outer face portions of the doll around the edges of said opening in the face of the doll, said cup-shaped member having a bottom wall and being imperforate except at said open end said cup-shaped member extending generally inwardly and downwardly from said opening so that the inner closed end of said cup-shaped member is disposed at a lower level than the open end thereof, said open end of said cup-shaped member defining a relatively widely opened mouth for the doll, and upper and lower teeth formations on said insert member projecting into the plane of said widely opened mouth, said rim portion being disposed outwardly of said teeth formations and being fashioned into upper and lower lips, said lower teeth formation projecting above the plane of said bottom wall.

2. The combination set forth in claim 1 wherein said teeth formations have a lateral extent less than the width of said opening.

3. A doll having a head provided with an opening in the face thereof, an insert for closing said opening, said insert comprising a generally cup-shaped member having a rim portion around the open end thereof overlying the edges of said opening, said cup-shaped member extending generally inwardly and downwardly from said opening so that the inner closed end of said cup-shaped member is disposed at a lower level than the open end thereof, said open end of said cup-shaped member defining a relatively widely opened mouth for the doll, and means on said insert defining upper and lower teeth formations which are vertically spaced apart, said teeth formations being located inwardly of the lips, said lower teeth formations terminating laterally inwardly of the opposite side edges of the open end of said insert member, and projecting upwardly above the plane of the bottom wall of said cup-shaped member, the lips extending from the base of said teeth formations outwardly so that the front faces of said teeth formations are generally exposed for brushing.

4. A doll having a head provided with an opening in the face thereof, a wall member surrounding said opening and extending inwardly from said opening, said wall member defining an oral cavity in the doll's head closed at its inner end, said oral cavity defining a relatively widely opened mouth, teeth formations projecting upwardly and downwardly from the lower and upper edges, respectively, of said opening, the bottom wall of said oral cavity sloping inwardly and downwardly from said opening, said teeth formations having a lateral extent less than the width of said opening, and including a tongue formation projecting upwardly from said bottom wall to a level above the lower teeth formations, said tongue formation at its point of connection with said bottom wall being of less width than said bottom wall.

5. The combination set forth in claim 4 including means forming upper and lower lips around said mouth opening, said upper lips extending from the base of said upper teeth formations in the direction generally outwardly and upwardly and said lower lips extending from the base of said lower teeth formations generally outwardly and downwardly whereby the front faces of said teeth formations are substantially entirely exposed and accessible for brushing.

6. The combination set forth in claim 5 wherein the lower edges of said upper teeth formations and the upper edges of said lower teeth formations are vertically spaced to permit insertion of a toothbrush therebetween.

7. A doll having a head provided with an opening in the face thereof, a wall member surrounding said opening and extending inwardly from said opening, said wall member defining an oral cavity in the doll's head which is closed at its inner end, the bottom of said oral cavity sloping downwardly and inwardly from said opening, said oral cavity defining a relatively widely opened mouth, teeth formations projecting upwardly and downwardly from the lower and upper edges, respectively, of said opening, and a tongue formation projecting upwardly from said bottom wall to a level above the lower teeth formations, said tongue formation at its point of connection with said bottom wall being of less width than said bottom wall.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,553,551	Reese	Sept. 15, 1925
1,999,724	Frisch	Apr. 30, 1935
2,586,081	Philippi	Feb. 19, 1952

FOREIGN PATENTS

Number	Country	Date
4,602	Great Britain	1912
380,960	Great Britain	Sept. 29, 1932