



US 20200253400A1

(19) **United States**

(12) **Patent Application Publication**

Born et al.

(10) **Pub. No.: US 2020/0253400 A1**

(43) **Pub. Date: Aug. 13, 2020**

(54) **SIPPY CUP REPLACEMENT**

(52) **U.S. Cl.**

(71) Applicants: **Lily Ann Born**, Skokie, IL (US);
Joseph Born, Lincolnwood, IL (US)

CPC **A47G 19/2272** (2013.01); **A47G 19/2261**
(2013.01); **B65D 43/022** (2013.01); **B65D**
25/24 (2013.01)

(72) Inventors: **Lily Ann Born**, Skokie, IL (US);
Joseph Born, Lincolnwood, IL (US)

(57)

ABSTRACT

(21) Appl. No.: **16/271,858**

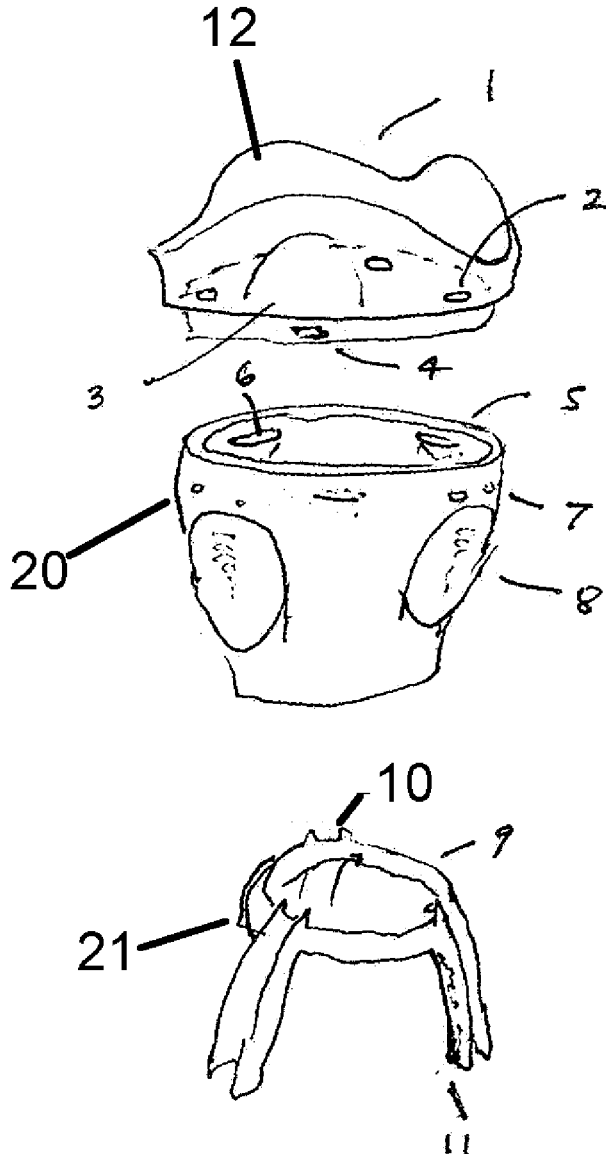
a regular, spoutless cup that provides more of the convenience of bottles and sippy cups to parents looking to wean their children off or avoid spouts from bottles and sippy cups. The cup has a lid, a body and optional legs. The lid has squeeze tabs that allow removal from the body portion. The lid and the body cooperate to provide flow control through at least one hole in the lid leading to the spout and at least one hole in a cover over the body. By rotating the lid and either aligning or not aligning the holes, the user can achieve flow control. The optional legs are attached to a ring that fits on the body. The legs can be laterally concave to provide superior properties that prevent tipping.

(22) Filed: **Feb. 10, 2019**

Publication Classification

(51) **Int. Cl.**

A47G 19/22 (2006.01)
B65D 25/24 (2006.01)
B65D 43/02 (2006.01)



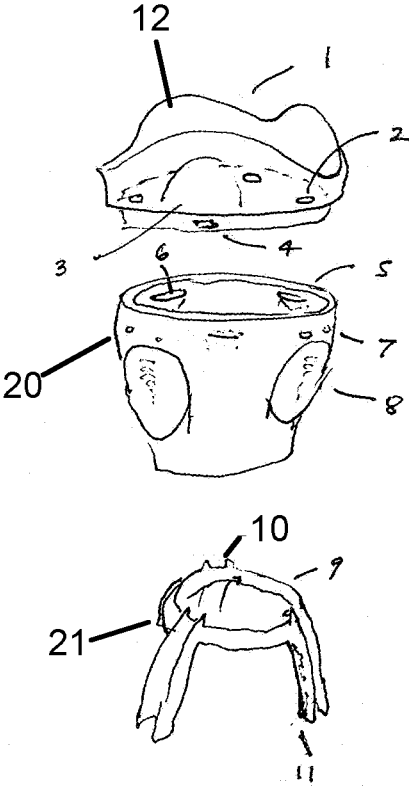


Fig. 1

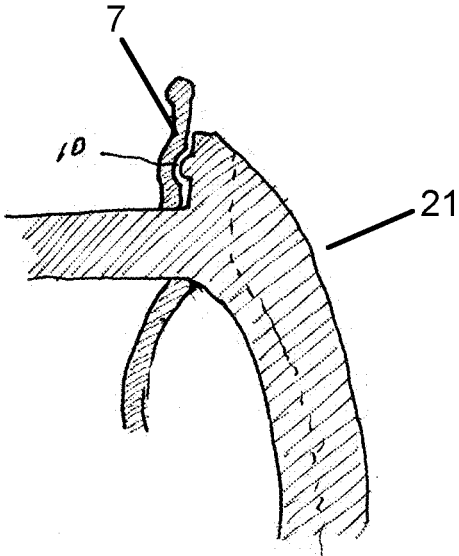


Fig. 2

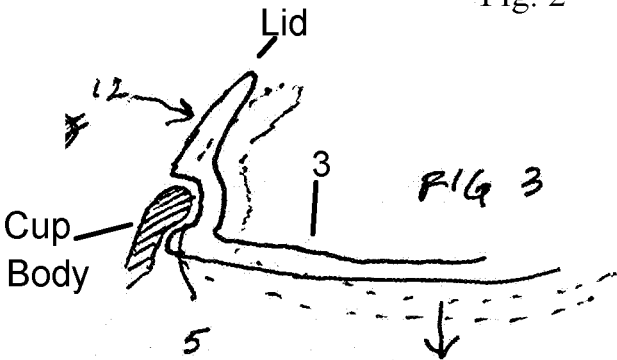


Fig. 3

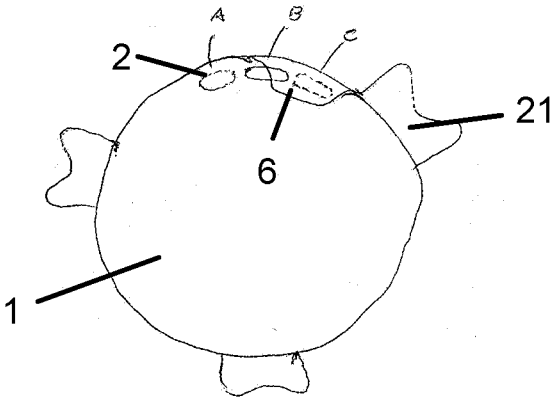


Fig. 4

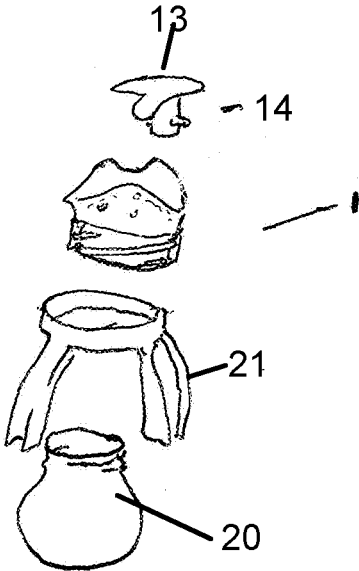


Fig. 5

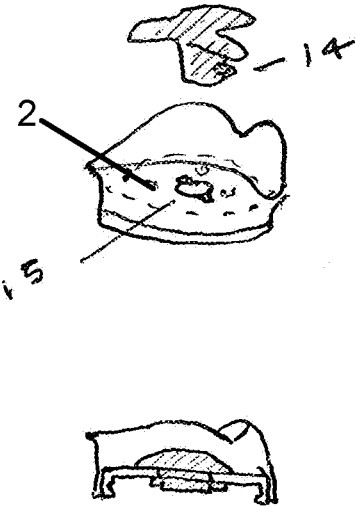


Fig. 6

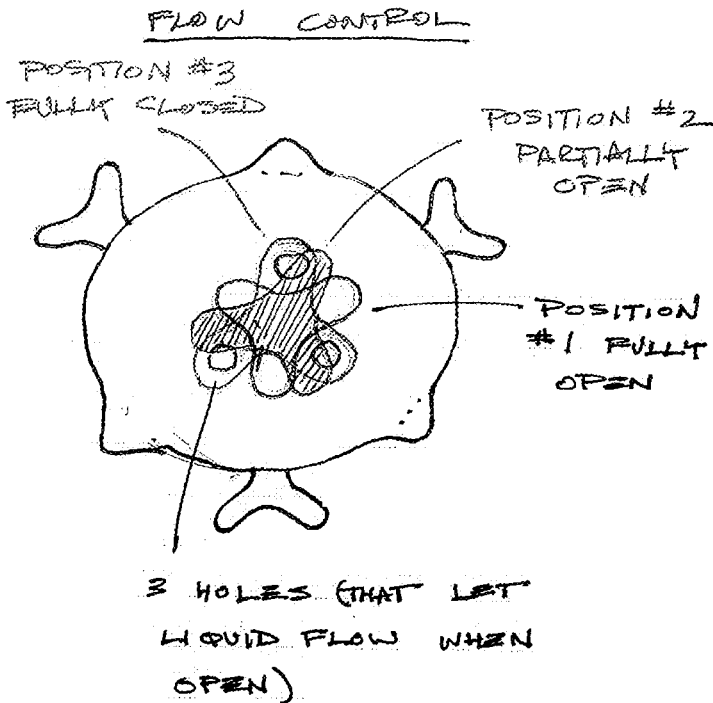


Fig. 7

SIPPY CUP REPLACEMENT

BACKGROUND

Field of the Invention

[0001] The present invention relates generally to cups for children and more particularly to a child's cup that replaces sippy cups.

Description of the Problem Solved

[0002] A myriad of health problems are associated with bottles and sippy cups. First is the interference with infant swallow maturation. Swallow maturation from the infant suckle-swallow pattern requires the tongue tip to rise to the alveolar ridge, the overuse of hard nipples can impede the tongue's ability to rise. Impeding the swallow maturation can also promote a tongue that rests low and forward in the mouth can have an impact on speech, promote mouth breathing and even affect palate development.

[0003] Both the American Academy of Pediatrics (AAP) and the American Academy of Pediatric Dentistry (AAPD) recommend that children be transitioned to regular, lidless cups at 12 months of age. It would be advantageous to have a regular, spoutless cup that provides more of the convenience of bottles and sippy cups to parents looking to wean their children off or avoid spouts from bottles and sippy cups.

[0004] While some practitioners have advocated using very small cups (1 to 2 oz capacity) for children: "a normal sized cup is akin to an adult drinking from a pail"; the present invention uses a larger cup which not only provides more capacity but is also easier to handle by providing at least on spout.

SUMMARY OF THE INVENTION

[0005] The present invention relates to a cup that provides more of the convenience of bottles and sippy cups to parents looking to wean their children off or avoid spouts from bottles and sippy cups.

[0006] A goal of the present invention is to provide a cup that is less likely to spill, tip or dribble, is easier for children to drink from, and easier for children and parents to hold.

[0007] It is also a goal of the invention to provide a cup that is sealable so that it can be transported or stored full without spilling or leaking. The present invention provides a soft surface proximate to the baby's face that reduces the danger from a fall or impact with the cup.

[0008] It is a goal of the invention to reduce the number of tight crevices or nooks which are hard to clean and thus can accumulate mold or bacteria, a known hazard with other designs.

[0009] Another goal of the invention is to avoid a vacuum system so that it can allow use by all children (many infants have not yet mastered the motor controls necessary to use "360 degree" vacuum lids)

[0010] Another goal of the invention is to reduce the number of user parts to 2-3 to facilitate operation and cleaning

[0011] Another goal of the invention is to provide adjustable flow control making it easier for both parents to feed as well as toddlers to feed themselves without being over-

whelmed by the excessive flow from open topped cups, requiring less dexterity from both caregivers and children alike

[0012] Another goal of the invention to provide legs that reduce tipping and spilling that can also be used as handles.

[0013] Finally, it is a goal of the invention that the legs can be removable for the purpose of making the cup usable in situation where the legs may interfere the use of the cup, such as in cup holders in strollers or in close quarters where protruding legs may get in the way of infant feeding.

[0014] The present invention addresses many of the problems young children have with open-topped cups, and as a result, gives a more viable option for minimizing or eliminating artificial nipples. For those parents who require greater spill proofing (for "on the go" and the like) the present invention allows the top to be placed in a fully closed position, so that the cup can be transported in a bag or the like without spilling.

DESCRIPTION OF THE FIGURES

[0015] Attention is now directed to several drawings that illustrate features of the present invention.

[0016] FIG. 1 is an exploded view of an embodiment of the present invention.

[0017] FIG. 2 is a close-in view of the interface between the legs and the cup body.

[0018] FIG. 3 is a close-in view of the interface between the cup body and the lid.

[0019] FIG. 4 is a top-down view showing the relationship of holes for flow control.

[0020] FIG. 5 is an exploded view of an alternate embodiment of the present invention

[0021] FIG. 6 shows the lid holes and the flow control cap.

[0022] FIG. 7 is a top-down view of the various positions of the flow control cap.

[0023] Several figures and illustrations have been provided to aid in understanding the present invention. The scope of the present invention is not limited to what is shown in the figures.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0024] In a first embodiment, a cup **20** is supplied with a removable lid **1** and a set of legs **21**. The cup body **20** is removable from the legs **21**. The lid **1** is a soft material such as silicone rubber. The lid **1** has a number of holes **2** that allow adjustment for flow control. The lid **1** has a plate **3** that flexes to allow insertion and removal of the lid **1** from the cup body **20**. There is a protrusion **4** attached to the plate **3** that allows locking under a mating cup lip **5** on the cup body **20**. The cup lip **5** is undercut so that it locks over the protrusion **4** in the lid **1**.

[0025] The cup body **20** has protrusions **6** that interface with the holes **2** in the lid **1**. These protrusions **6** allow the lid to control flow rate. Cavities **7** on the cup portion **20** allows tabs **10** on the legs **21** to lock to hold them in place. There may also be an optional concave cut-out **8** on the cup portion **20** that allows easy gripping. The legs **21** can have a band **9** that receives the cup body **20**. A tab **10** on each leg **21** mates with the cavities **7** in the cup body. This is shown in detail in FIG. 2.

[0026] Turning to FIG. 3, a detail is shown of the mating cup lip **5** on the cup body **20** and how it mates with the plate

3. The plate 3 has finger tabs 12 that allow deforming the plate 3 slightly. FIG. 3 shows the nature of the flexing of the plate 3 when a user presses on the finger tabs 12 bowing the plate 3 to allow the tabs on the plate to move inward towards the center of the cup and free of the cup lip 5.

[0027] FIG. 4 shows the lid holes 2 in three positions relative to the protrusions 6 on the cup body. In position A, the hole 2 is offset from the protrusion and allows full, unimpeded flow through the lid hole. In position B, the hole 2 is partially obstructed by the protrusion 6 and in position C, the hole 2 is fully obstructed, and the cup is sealed allowing no liquid to flow.

[0028] As viewed in FIG. 4, it can be seen that it is advantageous that the protrusion 6 should not be centered between the legs 21, since it is preferable that the user drinks from the cup with the spout section as close to the center between the legs. When the spout is directly over the protrusion however, it will be in the fully blocked or closed position for carrying or transport. When the spout is in the closed position, the spout can be closer to one of the legs. Therefore the protrusion 6 should be offset to be closer to one of the legs, and not centered directly between them.

[0029] As illustrated, the present invention includes three separate parts: a lid 1, a cup body 20 and a leg assembly 21.

[0030] The lid 1 has a lip 1 with inward curved sections and a lowered section that may be curved outward for drinking. The body of the lid 1 may be made from a soft material such as a silicon material, overmolded over a flexing plate. The flexing plate 3 provides greater rigidity over the silicon body, but allows for flexing to allow the insertion and removal of the lid. The flexing is facilitated by the user pressing the finger tabs 12, which are proximate to the protrusions 4 in the lid 1 that serve as interlocking tabs in conjunction with the internal cup lip 5 (which protrudes into the interior of the cup for the purpose of interfacing with the interlocking tabs). As the user presses inward, this causes the flex plate to bow allowing the tabs to move towards the center of the cup and out of the way of the rim, thus allowing the lid to be removed from the cup.

[0031] The cup body protrusions 6 are designed to interface with the holes in lid 2 to provide flow control in the following manner: By positioning the holes 2 relative to the body protrusions 6, the user can select the amount of flow allowed. If the holes are positioned directly on top of the protrusions the flow is altogether stopped, and such a position seals the lid and cup, allowing the cup to be transported or stored without spilling. If the holes are positioned partially on top of the protrusions, and partially offset, then the holes are partially blocked, and the flow control is reduced, but not stopped altogether providing an effectively smaller hole for liquid to flow through. By varying the offset of the holes and protrusions the caregiver can modify the effective size of the hole to provide the desired orifice size to provide the optimal amount of liquid flow. Finally, the holes can be offset entirely from the protrusions, where the protrusions do not cover the hole at all, thus allowing the maximum liquid flow.

[0032] In FIG. 1, three finger tabs 12 are shown. These finger tabs are typically located between the lowered section of the lid 1 so that the user presses in areas that are away from the lower drinking areas of the cup, and hence, they do not have to press locations that the infant drinks from. It should be appreciated that instead of three locations, two (or another number of) finger tabs could be used.

[0033] FIGS. 5-6 show an alternate embodiment of the present invention. There is a lid 1, a cup body 20 and a set of legs 21. In this embodiment, a flow control cap 13 with a post 14 is employed to provide flow control in conjunction with the lid 1. The lid 1, in this embodiment, is a plastic cap with internal threads that screws on top of the external threads of a blow molded (or injection molded) cup body 20. Over molded on top of that cap is a soft lip and spout structure that has holes 2 in lid for flow control. In addition, the lid 1 has a keyed opening 15 that allows a flow control cap 13 to be inserted (and locked in place by rotating the cap and thereby moving the posts 14 away from the keys and under the lid 1). As shown in FIG. 7, the flow control cap 13 can further be rotated into three positions to control the aperture of the holes in lid to allow them to be fully open, fully closed or sealed (for transport or storage) or to be partially closed, further restriction the flow of liquid. In this embodiment, the band connecting the legs is captured between the threaded lid 1 and cup body 20 when they are screwed together. The user can thread the lid and cup body without including the legs if so desired.

[0034] Several descriptions and illustrations have been presented to aid in understanding the present invention. One with skill in the art will realize that numerous changes and variations may be made without departing from the spirit of the invention. Each of these changes and variations is within the scope of the present invention.

We claim:

1. A child's cup comprising a lid and a body portion; the lid having a rim and a base, with at least one lowered spout location on said rim, the rim having a plurality of first holes constructed to mate with protrusions on the body portion; the base of the lid also having at least one through-hole, the through-hole providing a liquid flow path from the body portion; the lid also having a plurality of flexible finger tabs; the body portion including a cavity for holding liquid and a lip, the lip having the plurality of protrusions constructed to mate with the first holes in the rim; the body portion also having a closed cover with at least one flow hole in said closed cover; the lid and the body portion constructed so that when the flexible finger tabs on the lid are squeezed, the first holes on the lid separate from the protrusions on the body portion allowing the lid to be removed, and when the lid is placed on the body portion, and the flexible finger tabs are released, the lid mates to the body portion forming a liquid seal; the lid and body portion being constructed so that when the lid is rotated with respect to the body portion, the through-hole on the lid either aligns or fails to align with the flow hole in the closed cover of the body portion therein allowing flow control by rotating said lid.
2. The child's cup of claim 1 further comprising a legs portion, the legs portion including an upper ring with at least three downward pointing legs attached to the ring, the legs portion having a plurality of tabs that mate with a plurality of second holes in the body portion allowing the legs to be attached to the body portion.
3. The child's cup of claim 2 wherein each downward pointing leg is laterally concave.
4. The child's cup of claim 1 further comprising the lid having a plurality of through holes.

5. The child's cup of claim 4 further comprising the closed cover having a plurality of flow holes.

6. The child's cup of claim 1 wherein the spout is silicon rubber.

7. The child's cup of claim 6 wherein the rim is flexible plastic.

8. The child's cup of claim 1 wherein the body portion is rigid plastic.

9. The child's cup of claim 2 wherein the legs portion is rigid plastic.

10. A child's cup comprising a lid, a legs portion, and a body portion;

the lid having a rim and, a base, with at least one lowered spout location on said rim, the rim having a plurality of first holes constructed to mate with protrusions on the body portion; the base of the lid portion also having at least one through-hole, the through-hole providing a liquid flow path from the body portion; the lid also having a plurality of flexible finger tabs;

the body portion including a cavity for holding liquid, the body portion also have a lip, the lip including the plurality of protrusions constructed to mate with the first holes in the rim; the body portion also having a cover with at least one flow hole in said cover;

the lid and the body portion constructed so that when the flexible finger tabs on the lid are squeezed, the first holes on the lid separate from the protrusions on the body portion allowing the lid to be removed, and when the lid is placed on the body portion and the flexible finger tabs are released, the lid mates to the body portion forming a liquid seal;

the legs portion including an upper ring with at least three downward pointing legs attached to the ring, the legs portion having a plurality of tabs that mate with a plurality of second holes in the body portion allowing the legs to be attached to the body portion;

the lid and body portion being constructed so that when the lid is rotated with respect the body portion, the through-hole on the lid either aligns or fails to align with the flow hole in the cover of the body portion therein allowing flow control by rotating said lid.

11. The child's cup of claim 10 further comprising the lid having a plurality of through holes.

12. The child's cup of claim 10 further comprising the closed cover having a plurality of flow holes.

13. The child's cup of claim 10 wherein the spout is silicon rubber.

14. The child's cup of claim 10 wherein the rim is flexible plastic.

15. The child's cup of claim 10 wherein the body portion is rigid plastic.

16. The child's cup of claim 10 wherein the legs portion is rigid plastic.

17. A method for providing a child's cup comprising:

providing a cup having a lid and a body portion;

constructing the lid to have a rim and a base with at least one lowered spout location on the rim;

also constructing the rim to have a plurality of first holes that mate with protrusions on the body portion;

constructing the base of the lid portion to have at least one through-hole, the through-hole providing a liquid flow path from the body portion, and constructing the lid to have a plurality of flexible finger tabs;

constructing the body portion to include a cavity for holding liquid and constructing the lip to have the plurality of protrusions that mate with the first holes in the rim,

also constructing the body portion to have a cover with at least one flow hole in said cover;

constructing the lid and the body portion so that when the flexible finger tabs on the lid are squeezed, the first holes on the lid separate from the protrusions on the body portion allowing the lid to be removed, and when the lid is placed on the body portion and the flexible finger tabs are released, the lid mates to the body portion forming a liquid seal;

constructing the lid and body portion so that when the lid is rotated with respect the body portion, the through-hole on the lid either aligns or fails to align with the flow hole in the cover of the body portion therein allowing flow control by rotating said lid.

18. The method of claim 17 further comprising providing a legs portion, the legs portion including an upper ring with at least three downward pointing legs attached to the ring, the legs portion having a plurality of tabs that mate with a plurality of second holes in the body portion allowing the legs to be attached to the body portion;

19. The method of claim 17 wherein, the lid has a plurality of through holes.

20. The method of claim 17 wherein, the closed cover has a plurality of flow holes.

* * * * *