

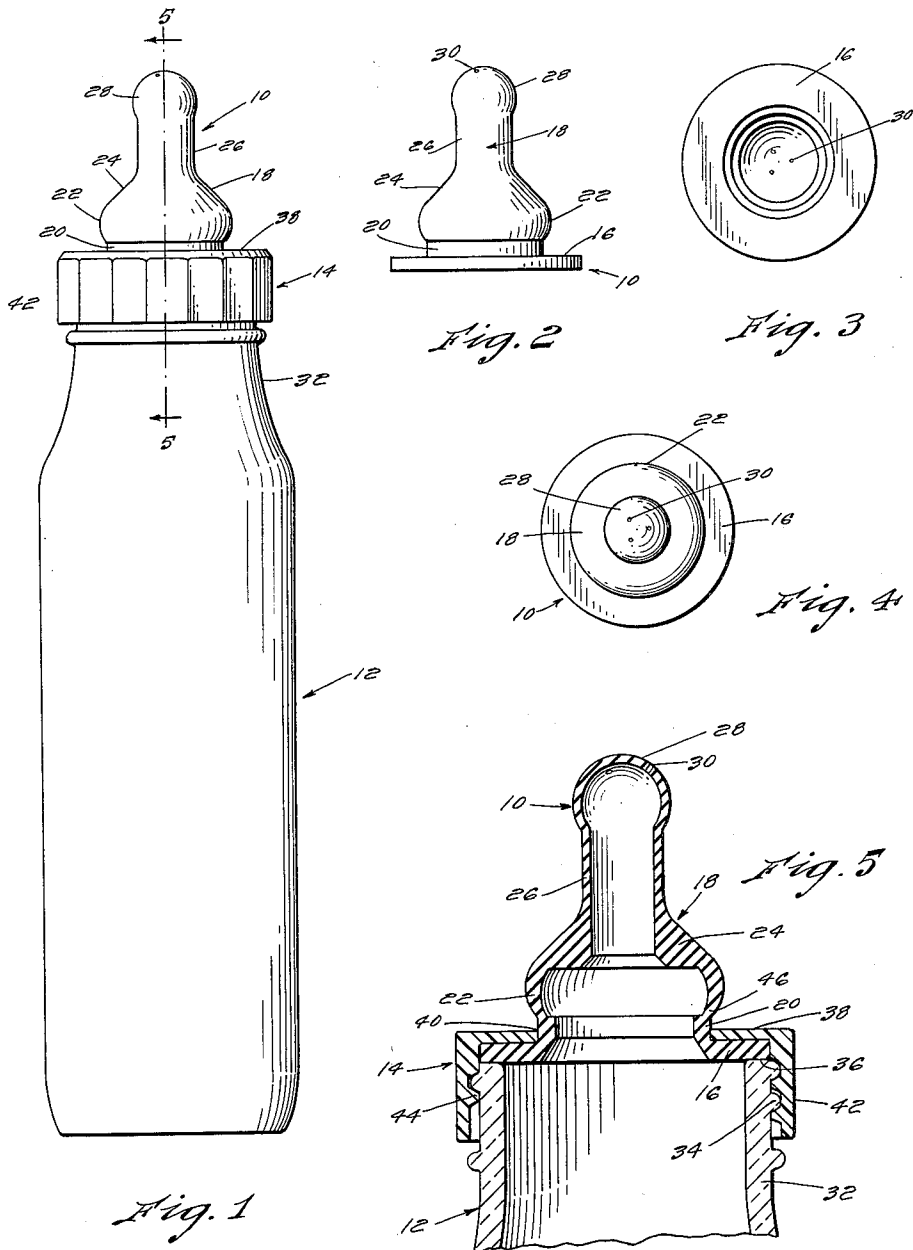
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NIPPLE CONSTRUCTION

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NIPPLE CONSTRUCTION

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1 Claim. (Cl. 215—11)

The present invention relates generally to infant feeding devices, and has particular reference to a novel and improved nipple construction.

A primary object of my invention is the provision of a feeding nipple having rounded contour sides, whereupon when used with a retaining cap in the conventional nurser combination, the cap will be resiliently maintained in assembly with said nipple, ready for use.

Another important object of the instant invention is the provision of a feeding nipple which will minimize the likelihood of the infant's mouth ever coming into contact with the retaining cap which maintains the nipple in assembled relation in the conventional nurser combination.

Another object of this invention is the provision of a feeding nipple which may be assembled in the conventional nurser combination without the necessity of touching the nipple per se after sterilization of same.

A further object of my invention is the provision of a feeding nipple which will provide an improved cushioning effect against inward thrust of the infant's mouth.

Still another object is the provision of a nursing nipple which is simple and economically feasible to manufacture, but which, nevertheless, is highly effective in use.

Other objects, features and advantages of the invention will become apparent as the description thereof proceeds when considered in connection with the accompanying illustrative drawings.

In the drawings which illustrate the best mode presently contemplated by me for carrying out my invention:

Fig. 1 is an elevational view showing a nurser combination utilizing my improved nipple construction;

Fig. 2 is a side elevation of my nipple per se;

Fig. 3 is a bottom view thereof;

Fig. 4 is a plan view thereof; and

Fig. 5 is a fragmentary section, on an enlarged scale, taken on line 5—5 of Fig. 1.

It has been found desirable to provide a nipple construction which produces an improved cushioning effect against inward thrust by an infant and which further may be readily assembled with the conventional retaining collar and resiliently maintained in such assembly, whereupon the collar and nipple as a unit may be sterilized, after which the collar may be secured to the nursing bottle to properly clamp the nipple in place without ever having to touch the latter subsequent to its sterilization.

Referring to the drawings, the novel nipple 10 is shown mounted on a medium mouth nursing bottle 12 by means of retaining cap 14. The nipple 10 is constructed of conventionally flexible and resilient material and comprises a circular base flange from which integrally extends a substantially cylindrical hollow body portion 18.

More specifically, the hollow body portion 18, which, preferably, is centrally positioned with respect to base flange 16, comprises a first wall section 20 extending upwardly from said base flange in substantially perpendicular relation. An intermediate wall section 22 curves gently outward from the upper edge of wall section 20

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and then curves gently inward until it merges with thickened annular portion 24 which in turn merges with upwardly extending section 26, the upper extremity of which is provided with a slightly enlarged feeding tip 28. One or more flow openings 30 are provided in said feeding tip.

Bottle 12 has a slightly reduced neck portion 32 externally threaded as at 34 and having an upper rim 36 on which the nipple 10 is seated, note Fig. 5. Retaining cap 14, preferably of molded plastic construction, comprises a top surface 38 having a central opening 40 therein, said opening being substantially equal or slightly smaller in diameter than the outer diameter of first wall section 20 of the nipple 10. Cap 14 further comprises a depending side wall 42 internally threaded as at 44 whereupon the said cap may be threaded onto bottle 12 with the marginal portion of nipple base flange 16 securely clamped between the cap upper wall 38 and bottle rim 36.

As will be noted most clearly in Fig. 5, the rounded contour portion 22 of nipple 10 is thinner at its lower extremity as at 46 and gradually increases in thickness until it merges with thickened annular portion 24. Thus, when the nipple is assembled for use and when an infant exerts an inward thrust against the nipple, rounded contour portion 22 provides, in effect, a firm pneumatic cushion against which the lips of the infant naturally rest and gain support. Should excessive inward thrust be exerted against said nipple, the thinner wall portion 46 will enable rounded contour portion 22 to bulge outwardly or, in other words, it might be said that the pneumatic cushion defined by the contoured wall 22 is being compressed. In any event, the outward flare of contour portion 22, in combination with the fact that wall portion 26 is slightly more elongated than usual, will function to prevent the infant's mouth from coming into engagement with wall 38 of the cap 14. This is an important feature since not only is it possible that the infant's lips might become bruised if forced against the relatively hard and rigid wall 38, but in addition, the cap 14 is likely to be not sterile since in all probability the said cap will be handled when securing the nipple is assembled relation with the bottle.

In view of the outward bulge of contour portion 22 of the nipple 10, and in view further of the fact that the opening 40 in cap 14 is of a lesser diameter, it follows that when the nipple is assembled to the cap by forcing hollow body portion 18 through the said opening 40, the parts will be resiliently maintained in assembled relation. This is a highly desirable feature since it enables the nipple and cap assembly to be sterilized as a unit without their becoming detached, whereupon subsequent to sterilization the nipple need never be touched, but rather it can be easily assembled to the bottle 12 by proper manipulation of the retaining cap 14. And since, as above discussed, the infant's lips are prevented from coming into contact with the said retaining cap, it follows that the instant arrangement is highly sanitary. It will be noted that the rounded contour portion 22 is relatively thick whereupon a fairly firm and rigid cushion is provided. For example, it will be noted that this portion of my nipple is considerably thicker than the upwardly extending portion 26 and the feeding tip 28. It will further be noticed that the height of first wall section 20 is substantially greater than the thickness of upper cap wall 38 whereupon said cap wall will not function to prevent cushioning of contour portion 22 should sufficient inward thrust be exerted by the infant to make such cushioning desirable and feasible.

Thus, it will be seen that there has been provided in accordance with the instant invention a nipple construction which functions to effectively achieve the various objects hereinbefore enumerated.

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While there is shown and described herein certain specific structure embodying the invention, it will be manifest to those skilled in the art that various modifications and rearrangements of the parts may be made without departing from the spirit and scope of the underlying inventive concept and that the same is not limited to the particular forms herein shown and described except in so far as indicated by the scope of the appended claim.

I claim:

In a nurser combination, a nursing bottle having a neck portion terminating in a rim, a flexible, resilient nipple having an outwardly extending circular base flange, said nipple being positioned on said bottle rim with the marginal portion of said flange making supporting engagement thereon, said nipple further comprising a substantially cylindrical hollow body portion extending integrally from said base flange and terminating in a feeding tip having at least one flow passage extending therethrough, said hollow body portion comprising a first wall section extending substantially perpendicularly upward from said base flange, and an intermediate wall section, the inner and outer surfaces of which curve gently outward from

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the upper edge of said first section and then merging inwardly and upwardly with said feeding tip, said intermediate wall section being thinner at its lower extremity and becoming gradually thicker, the combination further comprising a retaining cap having a central opening substantially equal in diameter to the outer diameter of said first wall section, said cap being superimposed over said base flange with the nipple body portion snugly received within said opening, and means for securing said cap to said bottle with the said base flange clamped therebetween, the thickness of said cap being less than the height of said first wall section.

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