United States Patent [19]

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[54] NURSING BOTTLE HOLDER

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- [58] **Field of Search** 248/102, 104, 106; 5/338; 46/60

[11] 3,905,571

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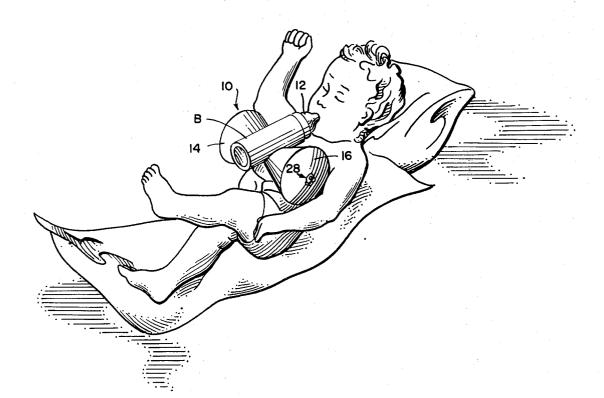
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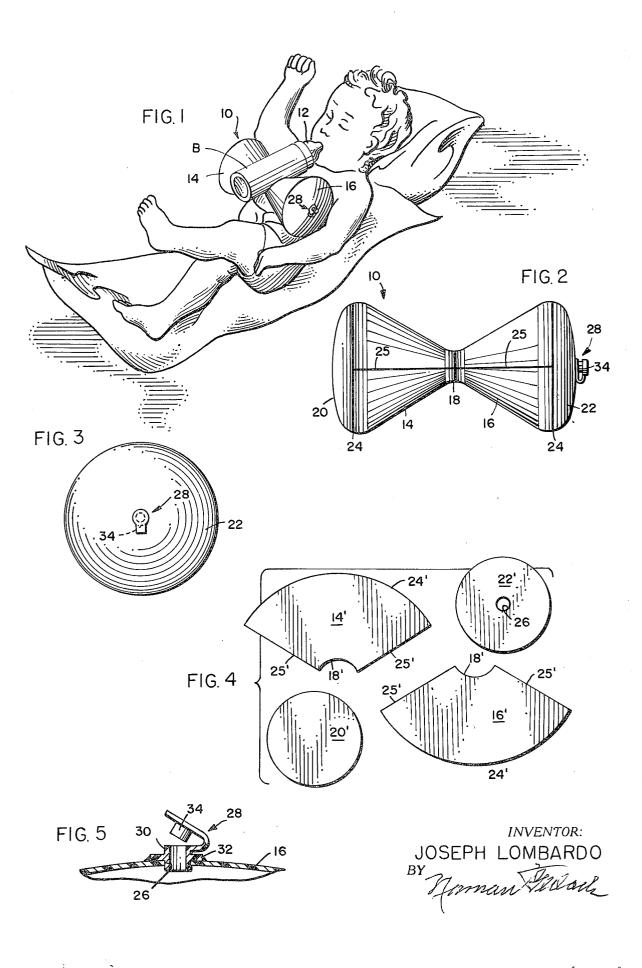
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[57] ABSTRACT

An inflatable nursing bottle holder which, when inflated, presents the contour or shape of a diabolo.

1 Claim, 5 Drawing Figures





NURSING BOTTLE HOLDER

The present invention relates generally to a nursing bottle holder and has particular reference to an inflatable plastic device which, when inflated in varying degrees and properly placed in a bottle-receiving posi- 5 tion, will securely maintain the bottle at a correct feeding angle against dislodgment through all but the most extreme movements of the infant undergoing feeding.

The novelty of the present invention is predicated for the most part upon the specific shape of the nursing 10 larly defined by the claim at the conclusion hereof. bottle holder which, when inflated, assumes a diabolo shape of medium slant angle so that when an infant is lying prone on his or her back, the holder may be placed transversely across the chest with the large ends of the holder being positioned close to the armpits and 15 with the small central region of the holder being centered on the chest at an appropriate distance from the infant's mouth so that a nursing bottle may be cradled against the side of the holder with the nipple of the botthe projecting conveniently into the infant's mouth. In 20 holder; such a position, the bottle is restrained against rolling or sliding sidewise. When deflated, the bottle holder may be pressed to a substantially planar condition for storage in a drawer, suitcase or on a shelf, thereby conserving space.

There are at the present time upon the market nursing bottle holders which are designed generally for the same purpose as that of the present bottle holder but most of these are fixedly secured to the bottles with bottles, a given holder must be removed from the bottle by detaching it therefrom and then applied to a freshly filled bottle, so that the holder and bottle as a unit may be replaced in a feeding position. It is obvious that with the present bottle holder, the same may be left intact ³⁵ in position and only the bottle itself removed for refilling purposes. After the bottle has been refilled, it may be replaced in position on the holder, the position of which has not been disturbed.

Another advantageous feature of the present inven-⁴⁰ tion resides in the fact that by employing an inflatable holder, the same is "adjustable," so to speak, to accommodate the physical characteristics of the infant undergoing nursing. For example, if a particular infant is of large proportions and has a relatively high or thick ⁴⁵ chest, the holder may be under-inflated accordingly in order to attain the proper feeding angle for the bottle. On the other hand, if the infant is relatively thin, full inflation of the holder will be resorted to.

Yet another advantage of the diabolo shape which 50the present nursing bottle holder assumes resides in the fact that the only orientation of the holder which must be considered is its transverse placement of the infant's body. Since a diabolo is uniform or symmetrical in contour as regards its circumference, no thought need be given to its angular position with respect to any selected radial plane, all such positions throughout a 360° angle resulting in no change in effective orientation of the holder.

The provision of a nursing bottle holder which is extremely simple in its construction; one which is devoid of any moving mechanical part and, therefore, is unlikely to get out of order; one which may be constructed from four flat blanks of the plastic material, 65 suitably jointed together, thus resulting in low manufacturing costs; one which is capable of being easily washed and sterilized; and one which is attractive in its

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appearance and pleasing in its design, are further desirable features which have been borne in mind in the production and development of the present invention.

The provision of a nursing bottle holder such as has briefly been outlined above and possessing the stated advantages constitutes the principle object of the present invention.

The invention consists in the several novel features which are hereinafter set forth and are more particu-

In the accompanying single sheet of drawings forming a part of this specification or disclosure, one illustrative embodiment of the invention is shown.

In these drawings:

FIG. 1 is a perspective view of a nursing bottle holder embodying the principles of the present invention and showing the same operatively applied to an infant undergoing feeding;

FIG. 2 is a side elevational view of the nursing bottle

FIG. 3 is an end elevational view of the bottle holder; FIG. 4 is a collective plan view showing the four plas-

tic blanks from which the bottle holder is formed; and FIG. 5 is an enlarged fragmentary sectional view

²⁵ taken on the line **5–5** of FIG. 3.

Referring now to the drawings in detail and in particular to FIG. 1, a nursing bottle holder embodying the present invention is designated in its entirety by the reference numeral 10 and is shown as being operatively which they are used. This requires that when changing ³⁰ applied in a bottle-supporting position to the chest portion of an infant, with the nursing bottle B resting thereon and the feeding nipple 12 which is associated with the bottle projecting into the infant's mouth.

As shown in FIGS. 2 and 3, the holder 10 is in the form of an inflatable plastic article or device which may be formed of any suitable plastic sheet material as, for example, polyethylene, polypropolene or the like and which assumes the form of a comparatively wide angle diabolo having substantially identical frusto-conical sections 14 and 16, the latter being disposed with their small bases in contiguity along a circular seam line 18. As shown in the drawings, the sheet material of which the two frusto-conical sections are formed is comparatively thin and of uniform thickness throughout. The large bases of the sections 14 and 16 are established by bulbous end walls 20 and 22, such end walls being secured to the large rims of the sections 14 and 16 by seam lines 24. A seam line 25 extends between the seam lines 18 and 24 on each of the two sections 14 and 16. The short angle of each frusto-conical diabolo section may vary within certain limits, an angle of approximately 30° being illustrated. However, a slant angle of from 20° to 45° may be found desirable under certain circumstances. The end wall 20 is imperforate but the 55 end wall 22 is formed with a filling opening 26 (see FIG. 5) which, preferably, is disposed at the center of such end wall and is adapted to be closed by a conventional filling nipple 28. Various filling nipples are available for use in connection with the filling opening 26, 60 the exemplary nipple 28 which is shown herein consisting of a cylindrical filling tube 30 which projects through the opening 26 and has a radial flange 32. The latter is adhesively secured along its periphery to the outer surface of the end wall 22. A captured closure plug 34 is integrally formed with the tube 30 and serves as a valve for the filling tube 30 as well as the filling opening 26. If desired a self-sealing type of filling opening may be employed and the filling tube 30 omitted.

The diabolo-shaped bottle holder 10 may conveniently be formed from four flat pattern blanks, namely, two cone frustum pattern blanks 14' and 16'and two circular pattern blanks 20' and 22'. The blanks 5 14' and 16' are identical in configuration, each blank presenting inner and outer arcuate edges 18' and 24' and linearly straight side edges 25'. The two circular blanks $\mathbf{20}'$ and $\mathbf{22}'$ likewise are substantially identical except for the provision of a small circular hole 26' in 10 ings or described in this specification as various the central portion of the blank 22'

To form the bottle holder 10, each blank 14' and 16' is folded to bring its side edges 25' into meeting relationship, after which these edges are suitably heat or otherwise sealed together in order to produce the seam 15 being a wide variety of suitable nipples available on the line 25 which is shown in FIG. 2. Thereafter, the inner arcuate edges 18' of the two blanks 14' and 16' are heat or otherwise sealed together in order to produce the central seam line 18 of FIG. 2. After such sealing operation the peripheries of the circular blanks 20' and 20 new and desire to secure by Letters Patent is: 22' heat or otherwise sealed to the edges 24' of the two now joined blanks 14' and 16', thus establishing the seam lines 24 of FIG. 2. Finally, the filling nipple 28 is installed in the hole 26' in the central portion of the blank 22', thus completing the inflatable article which, 25 ing a hollow member which is formed of comparatively when inflated, causes the blanks 14' and 16' to assume frusto-conical configurations and the blanks $\mathbf{20}'$ and 22' to bulge outwardly as shown in FIG. 2 and constitute the aforementioned end walls 20 and 22.

One way in which the herein described nursing bottle 30 holder is used is clearly shown in FIG. 1 wherein it will be observed that when the holder is positioned transversely over the chest portion of an infant so that the end walls 20 and 22 are disposed in close proximity to the infant's armpits, a trough-like rest for the bottle B 35 that it is adapted for positioning on the chest of the inis provided. When the bottle is positioned as shown in FIG. 2 the nipple 12 may be aligned with the infant's mouth and inserted into it. In this position, the bottle is restrained against lateral shifting movement.

to accommodate the different physical characteristics of the different infants undergoing feeding. For a highchested infant, it is contemplated that the holder may be somewhat under-inflated so that the bottle B will assume the proper feeding angle. Similarly, for a thin or 45

small child, full inflation will bring the bottle to the desired feeding angle. Since the bottle B is not captured by the holder but simply rests by gravity in the Vshaped trough which is provided for it, it is not necessary to remove the holder when refilling the bottle and the same may be left in place while the bottle refilling operation is being conducted.

The invention is not to be limited to the exact arrangement of parts shown in the accompanying drawchanges in the details of construction may be resorted to without departing from the spirit or scope of the invention. For example, various other forms of filling nipples may be substituted for the filling nipple 28, there market for this purpose. Therefore, only insofar as the invention is particularly pointed out in the accompanying claim is the same to be limited.

Having thus described the invention what I claim as

1. As a new article of manufacture, a nursing bottle holder adapted to be inflated and also expressly to hold an infant's nursing bottle in a feeding position while the infant is lying in a prone position, said holder compristhin flexible plastic sheet material of uniform thickness throughout and assumes the form of a diabolo having bulbous convex end walls which form the large bases of a pair of intercommunicating frusto-conical holder sections, said sections having a slant angle in the range of 20° to 45° and being joined together in end-to-end relationship at their small bases to provide a small-diameter junction region which is circular in transverse cross section, the inflated holder being of such proportions fant with said bulbous end walls disposed in the vicinity of the armpits and with said small-diameter junction region centered on the infant's chest, whereby the nursing bottle may rest tangentially and transversely on the The degree of inflation of the holder may be varied 40 holder for nipple-reception in the infant's mouth in all rotational positions of the holder, one of said bulbous end walls being provided in its central portion with a valve-equipped opening whereby the holder may be inflated and deflated at will.

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