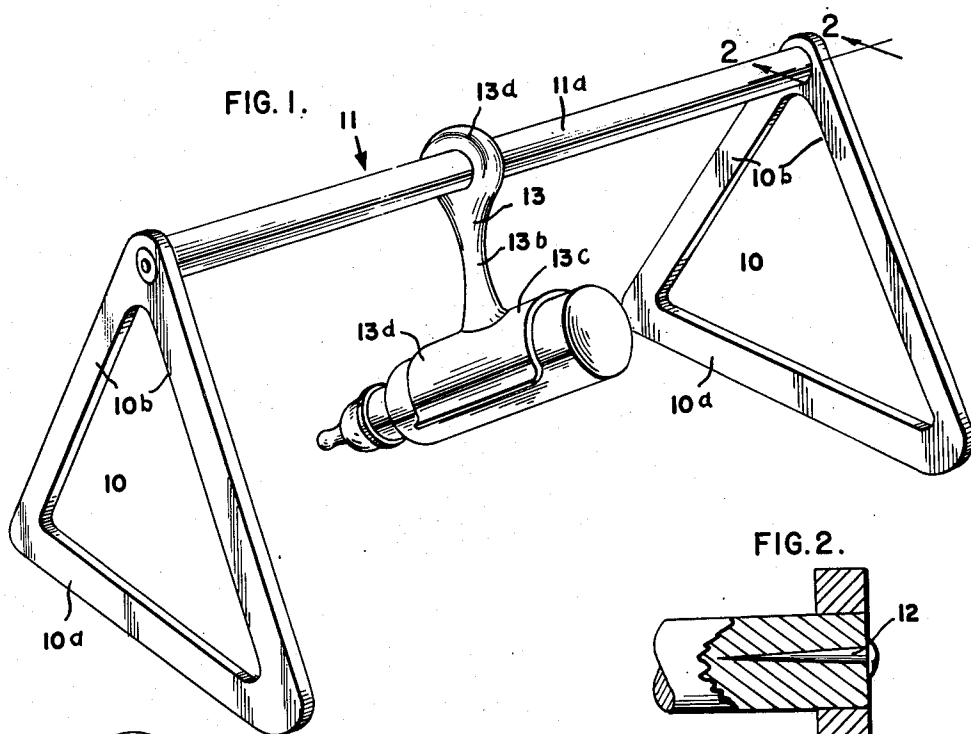
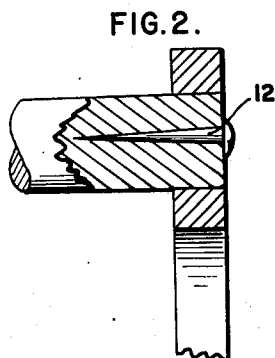
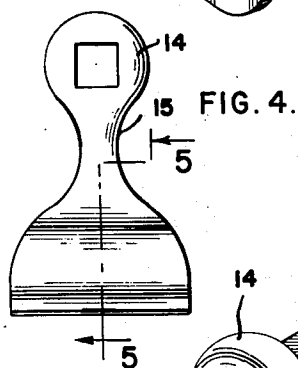
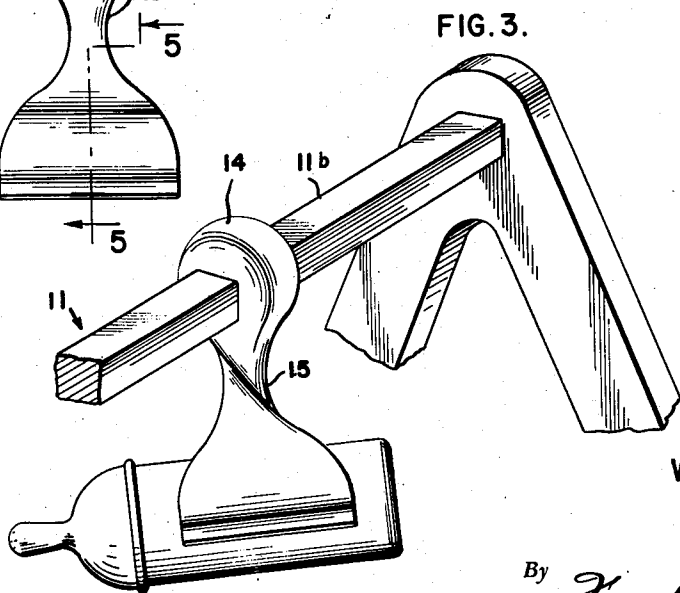
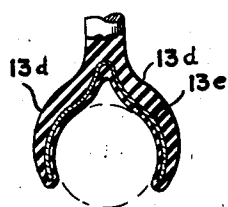


May 12, 1953

W. BATTLE
NURSING BOTTLE SUPPORT

2,638,296

Filed Aug. 11, 1950



Inventor

WINGATE BATTLE

By *Frank C. Maley*
AGENT

UNITED STATES PATENT OFFICE

2,638,296

NURSING BOTTLE SUPPORT

Wingate Battle, Atlantic Beach, Fla., assignor of
twenty per cent to John E. Veith, Arlington,
Va., and twenty per cent to Norman R. Bronie,
St. Petersburg, Fla.

Application August 11, 1950, Serial No. 178,935

3 Claims. (Cl. 248-105)

1

This invention relates to improvements in nursing bottle supports and has particular reference to such devices designed for usage when the infant feeding activities are to be provided while the infant is lying prone upon a supporting surface such as a crib or a bed.

Devices of this type and for this purpose have heretofore been proposed, but have not been completely satisfactory in usage for various reasons. For instance, a simple arrangement provides a bottle supporting frame embodying a pair of spaced end supports connected by a member so positioned as to receive and support the bottle at a fixed angle designed to present the nipple to the mouth of the infant thus positioned, the bottle being capable of adjustment in the direction of length of such angle to accommodate for infants of different ages, the connecting member having a length to place the supports at opposite sides of the body of an infant of larger size. While the assemblage is assumed to provide self feeding by the infant after the infant and bottle have been placed in position, attendants must actually be present during the feeding to avoid the difficulties of over-feeding and the creation of colic, since the nipple would otherwise remain in the mouth or in feeding position.

In an effort to avoid the latter condition, it has been proposed to mount the bottle holding connecting member in a way which would permit its being swung pivotally, the member being subject to spring control. In this form the positioning of the nipple in the mouth of the infant, places the spring or springs under tension and when, for any reason the infant releases the tension, the member and the bottle carried thereby, swing arcuately, thus carrying the nipple away from the mouth. The infant is assumed to draw the nipple back into feeding position if it has not actually completed its feeding. While this form would remove the nipple out of the feeding position, and thus mitigate some of the conditions present with the other form, it provides other unsatisfactory conditions. For instance, the connecting member is under spring tension in the feeding position so that the nipple within the mouth of the infant is also under such tension, thus providing uncomfortable conditions within the mouth during feeding, as well as providing a pressure trying to move the nipple out of the mouth, thereby forcing the infant to itself attempt to prevent nipple escape. With younger infants the conditions would inevitably lead to fretfulness and under-feeding conditions. Again, dispensing of an attendant during feeding is not

2

assured, since only an infant who by training, has been taught to restore the nipple and overcome the spring resistance of the spring mounting could dispense with the attendant.

Both of these present a very unsatisfactory condition. Not only must the infant be placed in a definite position on the support, but must maintain such position. This is due to the fact that the bottle holder is fixedly positioned lengthwise of the connecting member, and thus fixedly related to the end frames. This tends to limit the position in which the infant can be placed, should the support width approach the overall length of the assemblage and possibly force positioning the infant at an uncomfortable point. Again, should the infant change position, it would be forced, in the absence of an attendant, to find and return to the first position; a restless infant could readily produce the condition, but only a trained infant would know or could apply the relief.

The present invention is designed to meet these and other conditions with the structure assemblages disclosed herein, these providing for comparative simplicity in structure, efficiency in service, durable structurally, and capable of manufacture at low cost.

To these and other ends, therefore, the nature of which will be understood as the invention is hereinafter disclosed, said invention consists in the improved constructions and combinations of parts, as hereinafter more fully described in the specification, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims.

In the accompanying drawings, in which similar reference characters indicate similar parts in each of the views—

Figure 1 is a perspective view of one form in which the present invention may be provided;

Fig. 2 is a section on line 2-2 of Fig. 1;

Fig. 3 is a fragmentary perspective view showing a second form in which the assemblage may be provided;

Fig. 4 is an elevation of the bottle holder shown in Fig. 3;

Fig. 5 is a sectional view taken on line 5-5 of Fig. 4.

The assemblage of the present invention, two forms of which are shown in the drawings, consists of a supporting structure and a bottle holder unit carried thereby, these being combined to form a single assemblage.

The supporting structure, as shown, consists of a pair of end members or frames 10 and a con-

necting member 11. The end members may be of any preferred formation, but are preferably formed triangular in contour, as indicated in Fig. 1, thus providing an extended base 10a with the sides 10b of similar length united in an apical zone positioned opposite the base and into which the ends of the connecting member are secured. The member 10 is preferably of skeleton type, as shown, thus combining strength with light weight, the end members being formed of suitable material, such as plastic or metal, to provide the desired stability in structure. In practice, the base side is positioned on the supporting surface such as a bed or crib. The assemblage may also be supported practically on the ground if a suitable underlying pad or the like is positioned for the infant to rest on.

The connecting member 11 is of suitable length, being at least sufficient to span the torso zone of the infant, the end members being dimensioned to locate member 11 some distance above the torso of the prone infant. It is preferred, however, that member 11 be of increased length as compared with the members of prior structures of this type, since it is one of the features of the invention that the infant will have some freedom of movement laterally to avoid creating any irritating feeling of being cramped with a tendency to make the infant fretful and restless. In both forms, the member 11 is secured to the upper apical zones of the end members in such manner as to prevent rotation of member 11. Any suitable means for securing this result may be used, a simple arrangement being indicated in Fig. 2. Since member 11 is generally formed of wood, it is possible to sufficiently expand the end zones of the member as to frictionally engage the walls of the openings in the end members which receive the member end zones, by simply driving a small nail 12 or the like into the ends of the member 11, this being illustrated in the drawing.

The member 11 is shown as of different cross-section in the two forms shown, the member 11a in Fig. 1 having a circular cross-sectional contour, while in Fig. 3 the contour 11b is shown with a square contour, one form of polygonal contour, these differences being for the purpose of meeting the conditions set up by the two different structures of bottle holder units, as presently described. However, both forms of member 11 have the one characteristic that the bottle holder unit is slidable longitudinally of the member. This characteristic is employed to meet a number of conditions, a few of which are referred to. For instance, the width of the supporting surface may be such that the assemblage can occupy but one position thereon, but the surface itself may be such that a particular point in the length of the member 11 may not accord with the most desirable position of the infant on such surface. With a fixed position, the infant would be required to occupy the more uncomfortable position, but with the present invention the infant is placed in the most comfortable position and the bottle holder unit then moved lengthwise of the member 11 to place the bottle nipple in proper position for the feeding, it being understood that the bottle holder units shown will operate similarly at any position longitudinally of member 11. Again, should an infant for any reason, restlessness or otherwise, lose the nipple before finishing the feeding, an attendant, or even the infant itself, could shift the holder to the new position, instead of requiring return

of the infant to the former position. In other words, the required change could be made of the holder unit without disturbing the infant.

The bottle holder unit 13 is formed with an embracing zone 13a, the upper portion of which embraces member 11 and which may be considered as the head zone. This merges into an intermediate neck zone 13b, the lower portion of which is expanded and shaped for proper connection with the lower bottle clamping zone 13c, the latter including a pair of yieldable jaws 13d adapted to clamp the bottle between them, with the bottle axis normally extending transverse to the direction of length of member 11.

The Fig. 1 form of holder can be formed of any suitable material such as metal or plastic, or even wood, with the jaws 13d more or less resilient through the use of resilient material or by a shaped spring formation 13e as shown in Fig. 5, the holder unit in this form, Fig. 1, however, being designed to be more or less rigid and unyielding, except as to the clamping jaws. The head zone 13a is formed with an opening for receiving member 11, the fit therebetween being such as to set up a sufficient friction component that the holder unit can be moved either lengthwise of or around member 11 for adjustment of position and will remain in the adjusted position. This not only permits the adjustments referred to above, but also permits adjustment rotatively. This permits the meeting of either of dual conditions, viz: (1) to locate the bottle at the best angle for the delivery of the milk to the infant, since the frictional engagement enables the bottle holder to be positioned at any desired angle, and (2) to enable the attendant to shift the bottle holder unit arcuately to a position above the member 11, when the infant has ended feeding and probably has fallen asleep, the shift not arousing the infant.

The second, or modified form shown in Figs. 3 to 5, differs from the first form through the fact that the connecting member 11 is given a polygonal form in cross-section. It is shown as square, but may have a greater number of sides. The square form is preferred, although it prevents the small angular adjustments possible with the first form. The larger number of sides would permit rough adjustments, but would provide decreased ability to maintain the adjusted position as the number of sides is increased. The member 11 in this form is also non-rotative.

A second distinguishing feature of the second form is the fact that the bottle holder unit, indicated at 14, is formed of resilient rubber. Its shape is generally similar to that of the first form, having the opening of the head zone complementary to the cross section of the member 11, the jaw zone being reinforced by the resilient metallic formation 13e shown in Fig. 5, the neck zone 15 being of reduced dimensions. Due to the fact that the head zone is also of rubber, the holder can be swung arcuately, the walls of the head zone yielding as the holder is shifted from side face to side face of member 11. Because of the yieldability of the head zone, arcuate adjustments are practically limited to moving the holder approximately 180° to locate the bottle above member 11.

However, the holder unit of the second form presents the advantage of being able to move the neck zone torsionally, this being indicated in Fig. 3, which shows the holder unit as slightly twisted so that the bottle no longer extends truly transverse to the direction of length of member

5

14. It is a position which is obtained only when the infant is feeding. When the nipple is removed from the mouth of the infant, the holder returns to its normal transverse position. Should the infant lose the nipple by body movement, as by restlessness, before ending feeding, its hands can move laterally to grasp the bottle and by drawing the nipple toward the infant's new position, the neck zone of the holder becomes twisted, permitting the infant to continue feeding and without requiring shifting of the holder longitudinally of the member. When finished feeding, release of the nipple permits the holder to return to its normal transverse position, thus removing the nipple from the vicinity of the infant's mouth. The infant does not provide arcuate shifting of the holder about member 11 with this form, since the resiliency of the rubber would tend to return the holder into its normal position relative to a side of member 11. The attendant, however, can swing the holder through the semi-circular angle to place the bottle above member 11, due to yieldability of the head zone of the holder.

While each form of the assemblage provides the specific advantages above pointed out, both provide a general advantage over the structures heretofore contemplated, including earlier forms in which the end frames or members are omitted, the connecting member being in the earlier forms arranged to be removably clamped to the top rails of the side of a crib or the like. In such type, the connecting member is necessarily long to bridge the width of the crib, and since the side rails are comparatively high, the holder unit must be of extended length. Due to these conditions, the holder is made adjustable lengthwise of the holder unit, but the adjustment can only be by the attendant. While such structures were serviceable to a limited extent, they could not be employed where the support was a cradle or a baby carriage, or on the ground, the length of the connecting member and the less height of the sides preventing use of such assemblage except with the crib. To overcome these and other objections, the art structures previously described, having the end frames or members and a shorter connecting member were developed; these, in turn, presenting the disadvantages previously pointed out, the ability to position the assemblage at any desired point being deemed a satisfactory substitute for the adjustment of the earlier type longitudinally by the attendant.

The present invention, which provides both the end frame construction connected by the member 11 as well as the adjustment longitudinally, presents the general advantages of using a longer connecting member to meet the conditions of the comfortable positioning by attendant service through longitudinal adjustment, as above pointed out, and, in addition, provides for the conditions of a restless infant losing the nipple, being able to regain it by its own efforts, in the first form by sliding the holder unit longitudinally (permitted through the short length of the holder) and in the second form by the torsional twisting of the neck of the holder unit, also of short length, as above explained. In addition, both forms can be swung arcuately at will by the attendant to carry the bottle and holder to an upper position, in addition to which the first form permits accurate adjustment of the holder arcuately to position the bottle and nipple at the most acceptable angle for feeding service.

6

Since the bottle holding unit extends downward from and below member 11, when in feeding position with the bottle inclined sufficiently to produce a draining effect toward the nipple, and at the same time the nipple must be capable of extending into the mouth of the prone infant having the head properly positioned for comfortable feeding action (head slightly raised), it is apparent that this will place member 11 at a considerable height above the infant and assemblage supporting surface, with consequently a considerable distance factor in connection with the dimensions of the end frames. While these are shown as triangular with equal apical angles, it is the upright side dimensions that are actually controlling in this respect, it being obvious that the base side need only have a length sufficiently extended as to properly support the assemblage against upsetting or toppling, but not necessarily equal to the upright dimensions.

The important factor in this connection is that the sides preferably extend at opposite angles so as to produce a symmetrical upper apical zone capable of properly receiving the member 11. The distance factor can be determined on the basis that all mountings and movements of the holding unit and its bottle are above the axes of the end frames so that if such axis be considered as the upper limits of the space required for the torso of the infant, the positions of member 11 and the length of the holding unit can be readily determined. In other words, a line extending parallel with the member 11 and extending through such end frame axes, can represent the lower limits to which the holder unit and bottle can extend, this affording ample space below the line for the positioning of the infant as well as the movements of a restless infant within such space.

As will be understood from the drawings and the above description, the assemblage is comparatively simple in construction and thus reasonable in the cost of production, and at the same time is exceedingly efficient in service, being so formed as to permit positioning of the infant in its most comfortable position for feeding, and so manipulative as to tend to prevent the rise of conditions such as to make the infant restless, thus assuring the feeding activities under the most favorable conditions. Where the infant is restless or of restless type, the assemblage and its manipulative practices tend to prevent accentuation of the conditions, actually tending to reduce the conditions so as to provide for quiet feeding. In other words, the assemblage is developed in such manner as to assure as far as possible that the infant feeding conditions will be made active in such way as to tend to quietness rather than disturbing conditions, thus presenting the feeding activities in such form as to render them most conducive to the welfare of the infant.

While I have herein disclosed several ways in which the invention may be placed into practice, it will be readily understood that changes and/or modifications therein may be found desirable or essential in meeting the exigencies of service or the individual desire of a user. I, therefore, reserve the right to make all such changes and/or modifications so deemed essential or desirable insofar as the same may fall within the spirit and scope of the invention as expressed in the accompanying claims, when broadly construed.

I claim:

1. In nursing bottle holding assemblages,

7

wherein an assemblage enables feeding of the infant with the latter lying prone on a supporting surface, said assemblage comprising a pair of similar end frames of triangular contour extending vertically in parallel spaced relation and rigidly connected in their upper apical areas by an elongated normally non-rotative rigid connecting member of uniform polygonal cross-section to form a bottle-supporting frame adapted to straddle the prone infant with the connecting member spaced above the torso of the infant, and a bottle holder unit mounted upon and normally depending from said connecting member, said unit being formed generally of resilient rubber with the formation including a head portion, a pair of bottle-holding jaws, and a neck portion connecting the jaws with the head portion to form a unitary resilient configuration, said head portion having a laterally-extending opening complementally contoured to accord with the cross-sectional contour of the frame connecting member to thereby enable position adjustment of the unit lengthwise of the connecting member while normally retaining the unit against movement rotatively on such member, said jaws being positioned to support the bottle with the bottle axis normally extending in approximately transverse relation to the direction of length of the connecting member and below such member, said jaws being reinforced by a metallic resilient element dimensioned to combinedly embrace more than half of the length of the circumference of the bottle, the resiliency of the rubber content of the unit, enabling torsional and twisting movements of the unit by the infant during feeding and enabling movement bodily of the unit rotatively on the connecting member to locate the

8

unit inactive in reversed position above the member.

2. An assemblage as in claim 2 characterized in that the neck portion of the unit is of reduced cross-section to thereby enable ready torsional and twisting movements of the jaw portion by a restless infant during feeding without materially disturbing the general position of the unit in the assemblage.

3. A nursing bottle support comprising a pair of similar end frames of triangular contour extending vertically in parallel spaced relation and rigidly connected in their upper apical areas by an elongated rigid connecting member, said support adapted to straddle a prone infant with the connecting member spaced above the prone infant, a resilient rubber bottle holder unit mounted upon and depending from said connecting member, said unit comprising a head portion, a pair of bottle holding jaws and a neck portion connecting the jaws with the head portion, said head portion having a laterally extending opening complemental with the contour of the connecting member, said neck portion being of reduced cross-section to permit twisting movements of the jaw portion.

WINGATE BATTLE.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,151,920	Barton	Aug. 31, 1915
1,315,621	Barlow	Sept. 9, 1919
1,407,681	Saunders	Feb. 21, 1922
2,201,257	Bell	Feb. 3, 1939
2,514,134	Mann	July 4, 1950