Dec. 6, 1949 W. D. REYNOLDS 2,490,158

NURSING BOTTLE HOLDER

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FIG. 1.

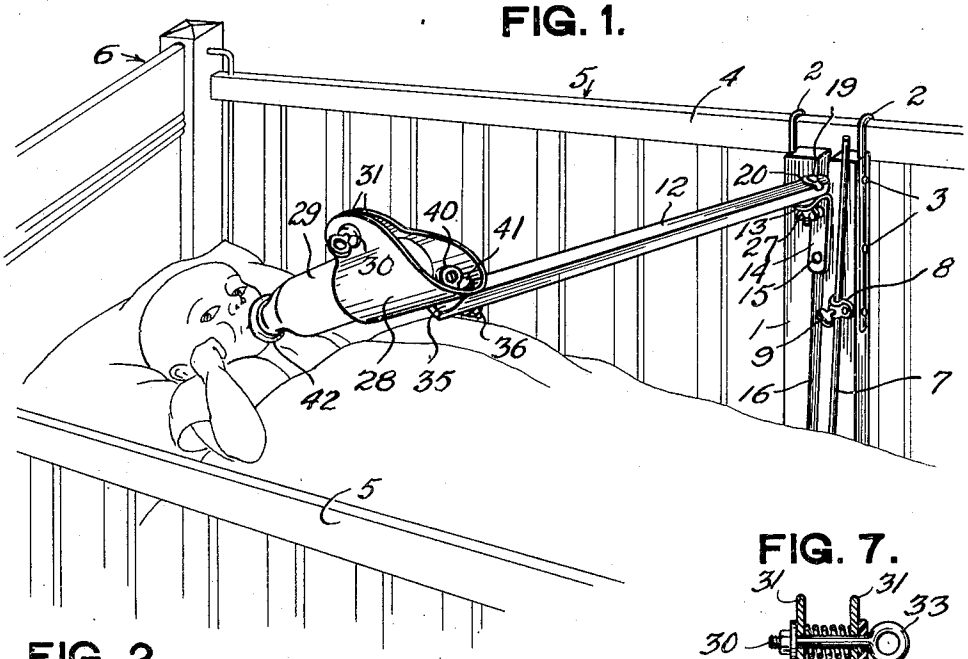


FIG. 7.

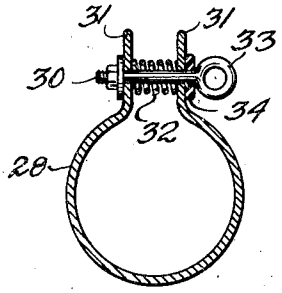


FIG. 2.

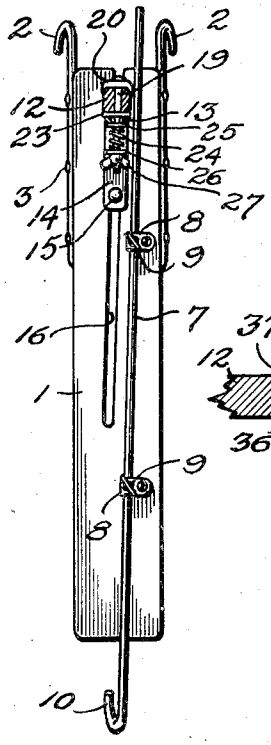
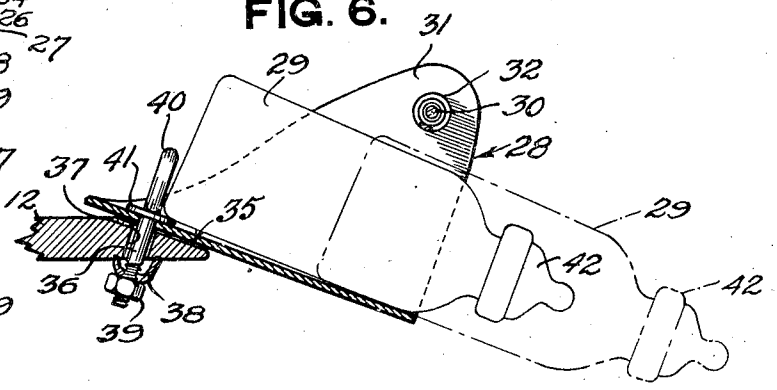


FIG. 6.



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FIG. 3.

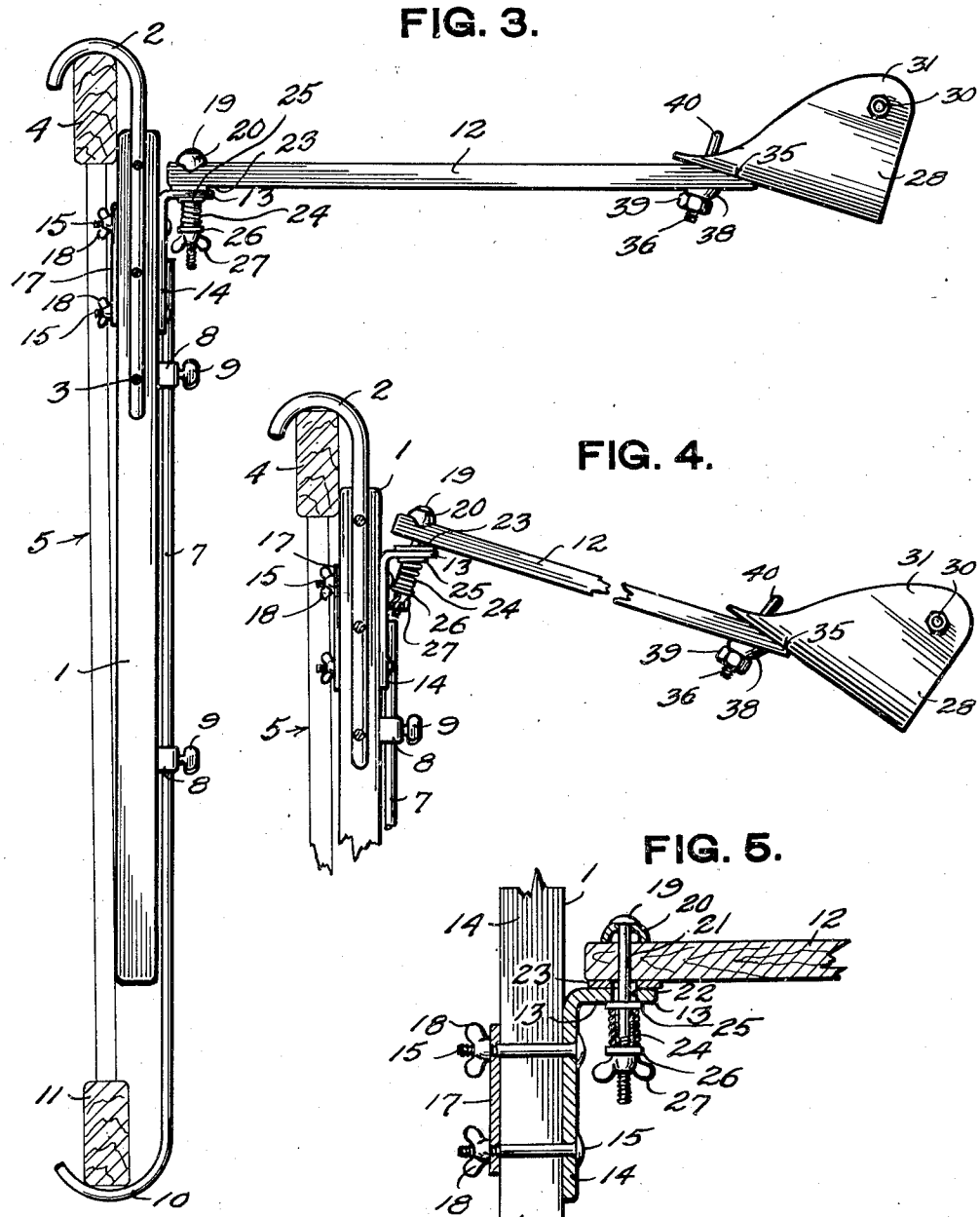


FIG. 4.

FIG. 5.

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NURSING BOTTLE HOLDER

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5 Claims. (Cl. 248—103)

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This invention relates to nursing bottle holders and it is one object of the invention to provide a device of this character which is adapted to be mounted as an attachment to a crib and to hold the bottle in such exact position that a baby in the crib may comfortably feed from the bottle without the necessity of an attendant holding or frequently adjusting the position of the bottle.

Another object of the invention is to provide a bottle holder having a support or mounting portion adapted to be adjustably secured in an upright position along and against a wall of a crib, and carrying an arm provided with a bottle holding clamp at its outer end, the arm being so connected with the support that it may be vertically adjusted along the support and thus allow the bottle to be disposed and held in a position where it is convenient for the baby lying in the crib to feed therefrom.

Another object of the invention is to provide a bottle holder wherein the arm is not only mounted for vertical adjustment but also pivotally mounted for swinging movement horizontally, and tilting movement vertically to various degrees of inclination. Therefore the arm may be so adjusted that the bottle will be disposed at an incline causing milk to flow towards the nipple of the bottle and the bottle disposed in such position that it may be easily reached by the baby.

Another object of the invention is to provide a bottle holder having at the free end of its bar or arm, a clamp so formed that it may embrace the bottle and the latter may be adjusted longitudinally in the clamp so that it will project forwardly from the clamp a desired distance for disposing it within each reach of a baby and also allowing the baby to grasp the bottle while feeding.

Another object of the invention is to provide a bottle holder which is of simple construction, easy to apply to or remove from a crib, and capable of easy dismembering for shipment or storage.

With these and other objects, the invention consists of a special construction and arrangement of parts illustrated in the accompanying drawings, wherein—

Fig. 1 is a perspective view showing the improved bottle holder applied to a crib in position for use.

Fig. 2 is a front elevation of the bottle holder, the arm or bar being shown in section.

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Fig. 3 is a side view of the bottle holder shown in Figs. 1 and 2, on an enlarged scale, the wall of the crib to which it is applied being shown in section.

Fig. 4 is a fragmentary view, similar to Fig. 3, showing the bar or arm tilted downwardly.

Fig. 5 is a fragmentary, enlarged, detailed sectional view showing the manner in which the bar or arm is mounted.

Fig. 6 is a sectional view taken longitudinally of the clamp in which the bottle is mounted and showing a portion of the supporting bar or arm.

Fig. 7 is a sectional view taken transversely through the bottle holding clamp.

This improved holder has a support or vertically disposed mounting member 1 which may be formed of wood, plastic, metal, or other suitable material. This member carries hooks 2, which may be formed from metal rods, and may have their shanks secured against or countersunk in opposite side edge faces of the mounting member by screws 3, the shanks being of such length that the hooks project upwardly from the member 1, for engagement about the upper portion of the upper rail 4 of one of the side walls 5 of a crib 6 and suspend the mounting member against the inner surface of the crib wall. A rod 7 extends vertically through brackets 8 carried by the member 1 and when set screws 9 carried by the brackets 8, are tightened, the rod will be securely held in a longitudinally adjusted position. The lower portion of the rod 7 is bent to form a hook 10 for engaging about the under portion the lower rail 11 of the crib wall. From an inspection of Figure 3 it will be seen that, after the hooks 2 have been engaged across the top of the crib wall and hook 10 engaged across the lower edge of the crib wall, and the screws tightened, the member 1 will be firmly held against the inner face of the crib wall and prevented from shifting along the wall or moving vertically. The member 1 will also be braced against swinging movement towards and away from the crib wall and it will remain stationary until the screws are loosened and the member 1 intentionally removed or moved to an adjusted position along the wall.

An arm or bar 12 extends from the mounting member and may be formed of any suitable material such as plastic, wood or metal. This bar is pivotally connected with the outstanding ear 13 of a bracket 14 which is disposed vertically against the front face of the mounting member 1 and is releasably secured thereto by bolts 15

which pass through a vertically extending slot 16 formed through the mounting member, the outer or rear ends of the bolts being passed through a metal plate 17 and carrying winged nuts 18 which are tightened to hold the bracket and the plate in binding engagement with the opposite faces of the mounting member 1. The slot 16 preferably extends in an upward direction from the lower portion of member 1 at an incline and the rod 7 is preferably parallel to this slot, as shown in Figure 2, thus reducing weakening of the mounting board.

In order to pivotally hold the inner or rear end of the bar 12 to the bracket there is preferably provided a bolt 19 which is passed through a cup-shaped bar washer 20, to prevent turning of the bolt, and then passed downwardly through an opening 21 formed through the inner end of the bar and through a relatively large opening 22 formed through the ear 13 of the bracket 14. A washer 23 preferably fits about the bolt 19 between the bar and the ear of the bracket to cause the bar to turn easily about the ear 13. Under the ear of the bracket, the bolt carries an expansion coil spring 24 disposed between washers 25 and 26, a winged nut 27 being applied to the lower end of the bolt for tightening the bolt and applying pressure to the spring so that the spring will be tensioned and the bolt and the bar frictionally held against turning movement. The bar may be swung longitudinally of the crib towards and away from the end occupied by a baby. It should also be noted that since the bolt is comparatively long the nut may be adjusted to compress the convolutions of the spring so that they contact, as shown in Fig. 3, or loosened to permit tilting of the bar to various desired downward inclined positions one of which is shown in Fig. 4.

A clamp 29 formed of resilient sheet material, such as plastic, is mounted at the outer or front end of the bar 12 and is of such length and diameter that the body of a bottle 29 may be passed into the circular body portion of the clamp and a bolt 36 which passes through ears 31 of the clamp then tightened to hold the body portion tightly about the bottle. An expansion coil spring 32 which surrounds the bolt and has its ends in engagement with the inner faces of the ears 31, urges the latter away from each other when the bolt is released and causes the clamp to move out of binding engagement with the bottle. A finger-hold 33 is formed at one end of the bolt so that it may be turned easily and this eye or finger-hold preferably bears against a washer 34 to prevent undue wear upon the ear of the clamp when the bolt is turned. The rear end of the clamp rests upon a sloping surface 35 of the front end of the bar 12, and the free end of the bar is formed with an opening 37 to receive the shank of a bolt 36 which passes through the opening 37. This bolt 36 preferably passes thru a bar washer 38 which has gripping engagement with the under face of the bar when a nut 39 on the bolt is tightened. Under the eye 40 of the bolt a washer 41 is preferably provided for engagement by the eye 40. By disposing the eye 40 transversely of the clamp it will serve as a stop to limit rearward movement of the bottle in the clamp, and the bottle will always project forwardly from the clamp in such position that the baby may have access to the nipple 42 and may if desired also grasp the protruding front end of the bottle when feeding.

An important feature of the invention is the pivoting and adjusting means for the arm 12, comprising the bolt 19, expansion spring 24 and nut 27, with the suitable washers 23, 25, and 26 and also the sloping surface 35 at the free end of the arm 12. By this arrangement, the nut 27 may be turned so tight that the convolutions of the spring 24 will be pressed together, as shown in Fig. 3, holding the arm 12 horizontal but the bottle holder 28 will still dispose the bottle at a downwardly sloping angle for proper withdrawal of liquid from the bottle by the baby, because of the sloping surface 35. However the position of the bottle may be lowered by somewhat releasing pressure of the nut 27 on the expansion spring 24 permitting the convolutions thereof to still touch at points, but expand in fan shaped fashion, as shown in Fig. 4, thus permitting the bar 12 to tilt to an angular position, depending on the extent to which pressure is relieved on the spring 24. Therefore it is not essential to adjust the bracket 14 downwardly in order to place the bottle in a lower plane of movement than when the arm 12 is horizontal. This enables the attendant or nurse to quickly dispose the bottle from the position shown in Fig. 4 to a position shown in Fig. 3, and out of reach of the baby, by merely tightening the pressure on spring 24. The spring 24 also serves to prevent very free swinging movement of the arm 12, thereby making it reasonably sure that the baby is not likely to push the bottle out of reach and cry for its return.

By disposing the rod 7 diagonally as shown in Fig. 2, it locates the hook 10 in a position about midway below the bottom of mounting member 1 to bring even pressure on the hooks 2, and yet the mounting of rod 7 avoids interference with adjustment of the bracket 14.

The adjustable rod 7 and hook 10 renders the holder adjustable to different makes and models of cribs, the side walls of which may vary in different makes or models from shallow side walls to those of considerable height.

A further possible adjustment to conform to the position of the baby in the crib may be accomplished by adjusting the extent to which the bottle 29 extends into the body portion of clamp 28 as indicated by full, and dot and dash lines of the bottle in Fig. 6. The eye or handle 40 of bolt 36 acts as a stop to prevent a person from shoving the bottle into the clamp to that extent where the nipple 42 would be wholly or partly within the confines of the body portion of the clamp.

I claim:

1. A nursing bottle holder comprising an upright mounting member, hook means extending upwardly and laterally from said mounting member for engaging over the upper edge of a crib wall, guide means carried by said mounting member, a rod slidable vertically through said guide means and having its lower portion projecting downwardly from the mounting member and formed with a hook for engaging under the lower edge of the crib wall, said guide means being provided with a set screw engaging the rod and releasably securing the same in a set position and holding the mounting member in a vertical position against the crib wall, said mounting member being provided with a slot leading downwardly from its upper end, a bracket disposed against said mounting member and having an ear projecting from the same, bolts passing through said bracket and said slot and projecting rearwardly from the mounting member, a plate disposed against the rear face of the mounting member and through which the bolts pass, nuts carried by the bolts and engaging said plate for causing

the mounting member to be gripped by the plate and the bracket when said nuts are tightened, a bar pivoted to said ear of said bracket for horizontal swinging movement to an adjusted position in the crib, and a clamp at the free end of said bar, adapted to be secured about a nursing bottle and removably hold the bottle.

2. A nursing bottle holder comprising an elongated mounting member, means for securing the same in vertical position against the inner surface of a side wall of a crib, a bracket disposed vertically against the front face of said mounting member and including an ear projecting forwardly from the mounting board, means for retaining said bracket in various vertically adjusted positions along said mounting member, a bar extending forwardly from said bracket, a bolt passing vertically through the rear end of the bar and through the ear of said bracket and pivotally mounting the bar upon the ear for horizontal swinging adjustment, an expansion coil spring about the bolt under the ear, a nut on said bolt beneath said spring, said nut adjustable on the bolt to compress the spring to various degrees whereby high compression of the spring will resist movement of the bar in a vertical plane and low compression of the spring will permit the bar to tilt downwardly from said ear, and a clamp at the front end of the bar for engaging about and holding a bottle.

3. A nursing bottle holder comprising a mounting member, means for removably securing the mounting member in vertical position against a side wall of a crib, a bracket shiftable vertically along the mounting member to adjusted positions and having a forwardly extending ear, a bar, a bolt passing vertically through the ear of the bracket and a rear end of the bar and projecting downwardly from the ear and pivotaly mounting the bar for horizontal swinging movement to adjusted positions longitudinally of the crib, an expansion coil spring surrounding the portion of the bolt under the ear, a nut on the lower end portion of said bolt for applying upward pressure to the spring and compressing said spring to various degrees and thereby allowing vertical tilting movements of the bar, and a clamp at the front end of the bar adapted to be secured about a bottle and removably hold the bottle with a portion of the bottle projecting forwardly from the clamp.

4. A nursing bottle holder comprising a mounting member adapted to be secured vertically against a wall of a crib, a bracket carried by said mounting member and shiftable vertically along

the same to adjusted positions, a bar extending forwardly from the mounting member and having its rear end connected with the bracket for movements vertically and horizontally to adjusted positions, the front end of the bar having a longitudinally sloping upper surface and being formed with an opening extending vertically therethru, a clamp resting upon the sloping surface of the front end of the bar and projecting forwardly from the bar and having a bottom and side walls, a pivot bolt passing vertically through the rear end of the bottom of the clamp and through the opening in the bar and having a nut upon its lower portion, and means for drawing side walls of the clamp towards each other and securing the clamp about a bottle and holding the bottle in position for use, said pivot bolt having a finger hold at its upper end projecting upwardly from the bottom of the clamp and constituting an abutment for limiting rearward movement of the bottle through the clamp.

5. A nursing bottle holder comprising an upright mounting member, a bracket carried by said mounting member and having an ear projecting forwardly therefrom, rods mounted along opposite side edges of said mounting member and having upper portions formed with hooks projecting rearwardly from the mounting member for engaging over the upper edge of a crib wall, guide means carried by said mounting member and projecting forwardly therefrom, a rod extending vertically in front of the mounting member between the bracket and a side edge of the mounting member and slidably passing thru the guide means and having its lower portion formed with a hook for engaging under the lower edge of the crib wall, a member for gripping the last mentioned rod and securing the same in a vertically adjusted position, a bar pivoted to the ear of said bracket, and a clamp carried by said bar for holding a nursing bottle.

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