Feb. 7, 1950 W. L. KINNEBREW 2,496,478

BOTTLE HOLDER

Filed March 20, 1946

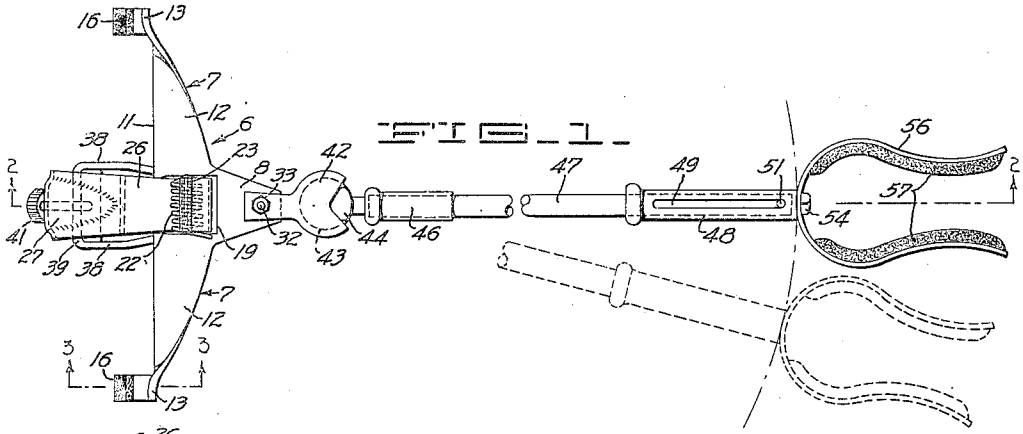


FIG. 1

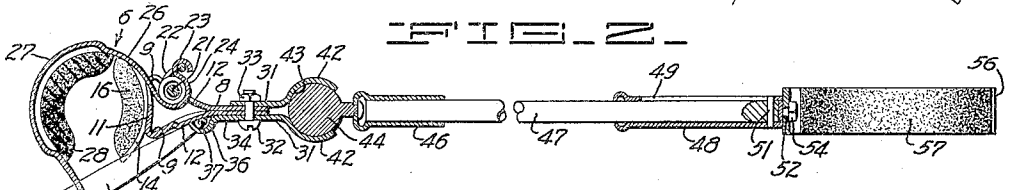


FIG. 2

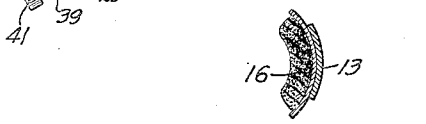


FIG. 3

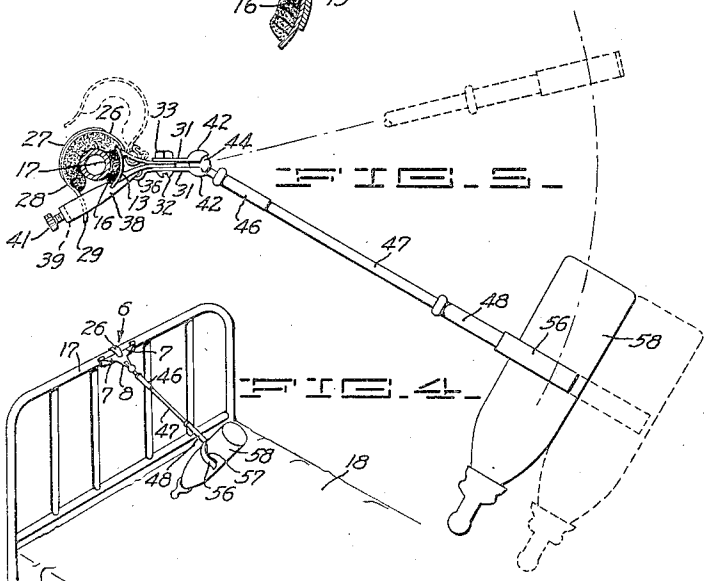


FIG. 5

FIG. 4

INVENTOR.
Walter L. Kinnebrew
BY Joseph B. Gardner
his atty.

Patented Feb. 7, 1950 2,496,478

UNITED STATES PATENT OFFICE

2,496,478

BOTTLE HOLDER

Walter L. Kinnebrew, Stockton, Calif.

Application March 20, 1946, Serial No. 655,809

2 Claims. (Cl. 248—230)

1

This invention relates to support devices for infant feeding bottles.

An object of the invention is to provide in a device of the character described, improved means for effecting rapid and secure attachment of the device to a bed structure or other such support.

Another object of the invention is to provide a bottle holder of the nature described which is adapted for extensible and swinging adjustments over a comparatively wide range so as to provide for a correspondingly wide selection of positions for the bottle supported thereby relative to the infant.

A further object of the invention is to provide a device of the character described in which bulk is reduced to a minimum, without sacrificing structural strength or serviceability, thus permitting the device to be carried on the person or in a bag or the like without creating a material amount of inconvenience.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of the preferred form of the invention which is illustrated in the drawings accompanying and forming part of the specification. It is to be understood, however, that variations in the showing made by the said drawings and description may be adopted within the scope of the invention as set forth in the claims.

Referring to the drawing:

Figure 1 is a top plan view of the bottle holder of my invention.

Figure 2 is a longitudinal vertical sectional view taken in the plane indicated by the line 2—2 of Figure 1.

Figure 3 is a vertical sectional view taken in the plane indicated by the line 3—3 of Figure 1.

Figure 4 is a partial perspective view of a bed showing the manner of application of the bottle holder of my invention thereto.

Figure 5 is a vertical sectional view, to an enlarged scale, taken in the plane indicated by the line 5—5 of Figure 4.

With reference to the preferred form of my invention shown in the drawing, the device comprises a quick-acting clamp unit, constructed for the most part of sheet metal, the principal element of which is a head member 6 provided with a pair of oppositely extending arms 7 and tabs 8 formed medially of the ends of the arms. The head member is composed of a unit piece of sheet metal bent along parallel longitudinal creases 9 to form a vertical web 11 and a pair

2

of relatively convergent flanges 12 extending therefrom of which the tabs 8 form integral parts. The triangular cross-sectional shape thus provided for the head member lends rigidity and considerable structural strength thereto in spite of its comparatively light construction and also facilitates the mounting thereon of other parts of the structure to be presently described. The outer end of each arm 7, including portions of the web 11 and the flanges 12, is shaped to provide an attachment flange 13 which is riveted or otherwise secured to an arcuate pad bar 14 to which is preferably adhesively secured a pad 16 of resilient material such as felt or sponge rubber. The head member is thus provided with a pair of spaced concave grips represented by the pads 16 which, as shown in Figures 4 and 5, may be placed against the side of a rod-like support element 17 which in this case happens to be the head rail of a bed or infant's crib 18. Means is provided on the head member for clamping the pads 16 against the head rail or other support member so as to rigidly hold the head member in place. Portions of the upper flange 12 and the web 11 intermediate the ends of the head member are cut away to form an aperture 19 across which extends, longitudinally of the head member, a pivot rod 21 about which is placed a coil spring 22 having a tangentially extending portion of one end coil resting on top of the upper flange 12 and a similar end portion of the opposite end coil engaged in the hook extension 23 of a pivot loop 24 peripherally enclosing the spring 22 and formed at one end of an arcuate clamp hook 26 which conforms in curvature with and is entrantly curved opposite to the pad bars 14. An embossed rib 27, formed integrally with and extending along the major portion of the hook 26, is provided for lending rigidity to the latter and a pad 28 of felt or sponge rubber is adhesively or otherwise secured to the concave face of the hook. The extremity of the hook 26, opposite its pivotal mounting on the head member, is formed with a tangentially extending tongue 29. The pad of the clamp hook, as shown in Figure 5, may be swung as the holder is being applied to the bed rail or support member, from the disengaged dotted line position thereof to the full line position thereof wherein it engages the rail or support at a point on the surface thereof opposite to the points of contact of the pads 16. The spring 22 is so arranged and stressed that it will automatically return the clamp hook, when the latter is released, from its disengaged to its

engaged position. Means is provided for securing the clamp hook against movement and for pulling the pads 16 and 28 together so as to squeeze the rail 17 or other support therebetween. Engaging the opposite exposed faces of the relatively superposed tabs 8 is a pair of wings 31 each of which has an aperture therein registered with corresponding apertures provided in the tabs and through which passes a tension adjustment bolt 32 fitted with a securing nut 33 which may be free but which is preferably secured against rotation by being soldered or otherwise secured to one of the wings. The lowermost wing 31 is provided with a tabular extension 34 formed at its distal end with a hooked portion 36 having its concavity facing the wing to form a pivot journal in which is mounted the cylindrical transverse end bar 37 of a locking loop which comprises a pair of relatively spaced parallel arms 38, secured to and extending radially from the opposite ends of the bar 37, and a cross-member 39 secured to and extending transversely between the distal ends of the arms. The proportions of the locking loop are such that when it is swung from its released position, shown by the dotted lines of Figure 2, to its operative locking position, shown by the solid lines, the tongue 29 will enter the loop between the arms 38 thereof and the cross-member 39 will overlie the rear surface of the tongue. A thumbscrew 41 threadedly engaged in the cross-member 39 may be extended toward and to engage the tongue 29 when the loop is in locking position so as to fixedly secure the clamp hook 26 against release movement and to forcibly squeeze the pads 16 and 28 against the rail 17 or the other such support element with which the bottle holder may be engaged. The head member of the holder is thus securely held in place but may, if desired, be instantly released by loosening the screw 41 so as to permit the locking loop to be swung downwardly away from the clamp hook whereupon the latter may be swung upwardly to disengage the head member from the support element 17.

From the clamp unit above described extends an adjustably positionable support arm which serves as the carrier for the nursing bottle. This arm may take one of several equally acceptable forms and it will be understood that the invention is not to be limited to the herein shown and described form thereof. Each of the wings 31 is provided with an integral extended tab 42 so formed that the confronting faces of the tabs provide a spheriform socket 43 frictionally engaging the spherical end member 44 of a tubular thimble 46 in which is secured one end of a support arm 47 which may be of any desired length depending upon conditions of operation. The other extremity of the support arm 47 has a sleeve 48 longitudinally slidable thereon provided with an axially extending slot 49 in which a pin 51 secured in and extending radially from the support arm is slidably engaged so as to provide a limited degree of relative extension between the support arm and sleeve. The distal end of the sleeve 48 carries a stud 52 to which is attached, by a nut 54 or other such securing means, a fork 56 of spring metal having pads 57 of friction material such as felt or rubber secured to the confronting inner surfaces thereof. As shown in Figures 4 and 5, the fork 56 is adapted to grip and support the nursing bottle 58 inserted in inverted position between the arms of the fork. The adjustability of the support arm and its mounting permits the bottle 58 to be placed and held in a wide range of positions relative to the child being fed.

Although I have shown and described the device of my invention as adapted for use with a bed or crib, its utility is not impaired by the absence of these support structures. For instance, under abnormal circumstances such as on outings or the like where an infant is to be fed and no natural overhead elements are available around the spot where the child may be lying, utilization of the bottle holder may be effected by driving a slender stake or branch vertically into the ground on which the holder may be attached so as to hold the nursing bottle in the desired elevated position relative to the child.

I claim:

1. In a bottle holder for attachment to a rod-like support member, a head member having thereon contact elements for engaging relatively spaced points on a side of said support member, a clamp hook mounted for pivotal movement on said head member and having a portion thereof engageable when said clamp hook is moved relative to the head member with an opposite side of said support member, a locking loop mounted for pivotal movement on said head member and movable to a position enclosing a portion of said clamp hook for restraining the latter against movement relative to said head member, means carried by said locking loop and engaging said clamp hook for pressing the latter into engagement with said support member.

2. In a bottle holder for attachment to a rod-like support member, a head member having oppositely extending arms provided with contact pads for engaging relatively spaced points on a side of said support member, an arcuate clamp hook pivoted on said head member and movable to overlie the opposite side of said support member, said clamp hook having thereon a contact pad engaging the support member at a point intermediate the points of contact with the support member of said head member contact pads, a locking loop pivoted on said head member and movable to overlie a portion of said clamp hook, a screw carried by the locking loop interposed between the latter and said clamp hook for pressing the contact pad thereof into engagement with said clamp hook against movement relative to said support member.

WALTER L. KINNEBREW.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,006,598	Schnaus	Oct. 24, 1911
1,357,295	McNaughton	Nov. 2, 1920
1,671,085	Nuernberg	May 22, 1928
1,688,765	Veras	Oct. 23, 1928
2,279,090	Markey	Apr. 7, 1942