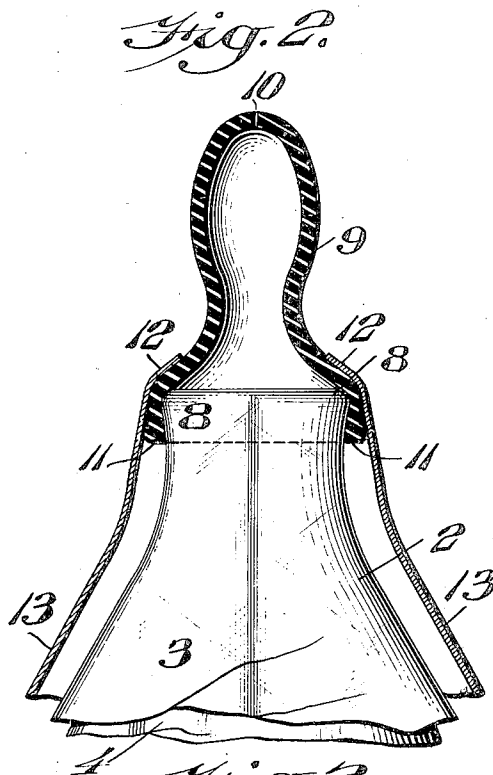
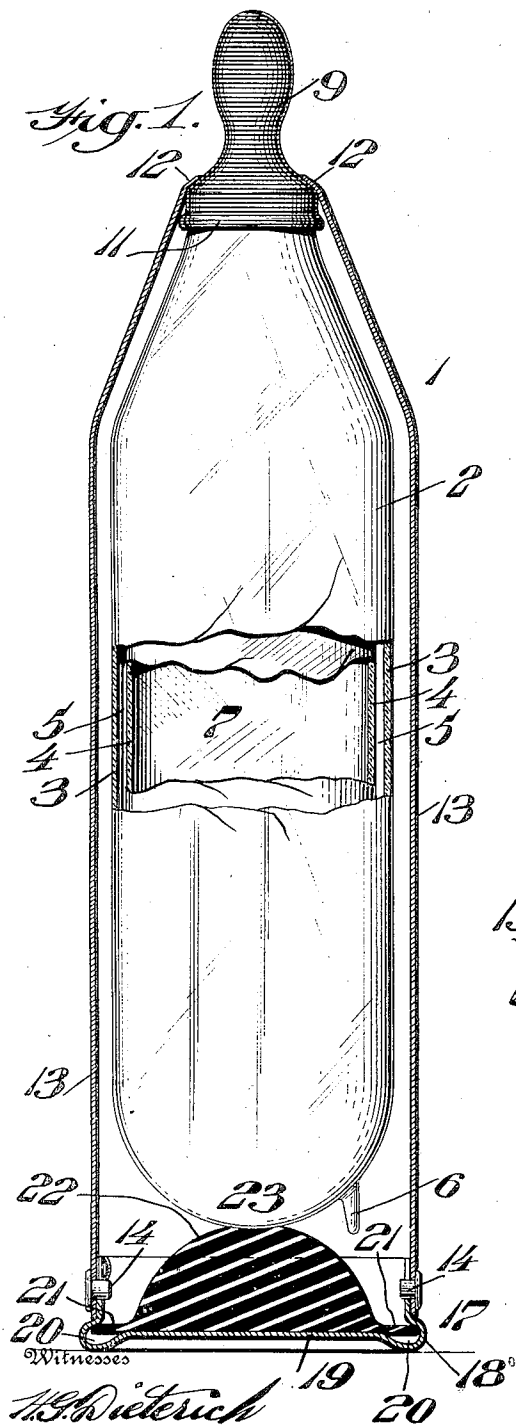


P. O. E. FRIEDRICH.
VACUUM NURSING BOTTLE.
APPLICATION FILED FEB. 6, 1909.

922,413.

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Inventor
Paul O. E. Friedrich.

By Friedersheim & Franks
Attorneys

Witnesses
H. B. Dietrich
L. Douville.

UNITED STATES PATENT OFFICE.

PAUL O. E. FRIEDRICH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO CALORIS MANUFACTURING CO., A CORPORATION OF DELAWARE.

VACUUM NURSING-BOTTLE.

No. 922,413.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, PAUL O. E. FRIEDRICH, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Vacuum Nursing-Bottle, of which the following is a specification.

My invention consists of a novel construction of a vacuum nursing bottle, wherein I employ a vacuum bottle inclosed in a suitable casing, the latter being open at both ends and having its upper end constructed so as to engage between it and the mouth of the vacuum bottle, a suitable nursing nipple which may be of the usual character, provision being made for enabling the bottle to be readily removed from its casing by the withdrawal of a cushion closure from the larger or the bottom end of the casing, said closure being held in position by means of a bayonet joint or joints of similar character and the bottle being thus cushioned in respect of its casing at its upper and lower portions, the same is not liable to break in case it is dropped by the infant, nurse or attendant.

Heretofore, one objection to the use of a vacuum bottle as a nursing bottle has arisen from the fact that without a suitable casing surrounding the same, there is great danger and liability of the bottle to break if dropped by the infant, nurse or attendant, in which case as is well known, an explosion would take place with the liability of the infant or attendant being harmed by the flying fragments, whereas in my construction no such accident can occur, since the bottle is prevented from breakage by reason of the cushioning devices at its opposite ends.

To the above ends my invention consists broadly of a novel construction of vacuum bottle having a nursing nipple secured to the mouth thereof in conjunction with an open ended metallic or other casing, the smaller end of said casing having its walls converged or deflected inwardly so as to hold the nursing nipple tightly in place and the larger or lower end of said casing being provided with a removable closure having a cushioning device located between said closure and the base of the vacuum bottle.

It further consists of other novel features of construction all as will be hereinafter fully set forth.

For the purpose of illustrating my inven-

tion, I have shown in the accompanying drawings one form thereof which is at present preferred by me, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Figure 1 represents a side elevation of a vacuum nursing bottle and its adjuncts, the casing thereof being shown in section. Fig. 2 represents on an enlarged scale, a side elevation of the upper portion of the bottle seen in Fig. 1, the nursing nipple and casing being shown in section. Fig. 3 represents a side elevation of the removable closure of the larger or bottom end of the casing.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings: 1 designates my novel vacuum nursing bottle and its adjuncts, the same comprising the vacuum bottle 2 which latter is composed of the outer walls 3 and the inner walls 4, the spacing 5 therebetween having the air exhausted therefrom by any suitable vacuum producing means, which may be applied to the teat 6 which latter is sealed after the completion of the exhausting operation and the interior of the bottle being adapted for the reception of the infant's milk or other fluid.

8 designates the mouth of the bottle upon which is supported the nursing nipple 9, the latter having the suction opening therein and the base 11 of the nipple being drawn downwardly over said mouth 8 so as to be engaged and encircled by the converging open ended walls 12, of the casing 13, which may be of metal or other suitable material. The lower portion of the casing 13 is provided with the inwardly extending pins 14 which are adapted to enter the angular slot 15 of the upwardly extending wall 16 of the closure 17, the latter being preferably provided at its base with the milled or knurled portion 18 which has its central portion 19 slightly elevated, as will be understood from Fig. 1 so that the annular chamber 20 is formed for the reception of the ends 21 of the resilient cushion or its equivalent 22, the latter being preferably a body of

rubber or other resilient material of semi-spherical shape and adapted to lightly contact with the base 23 of the vacuum bottle.

The manner of assembling the parts will be readily understood by those skilled in the art since it will be apparent that the attendant first removes the nipple 9 from the vacuum bottle 2 and having filled the same with the milk or other liquid which it is desired to give to the infant, the nipple 9 is placed in position. The closure 17 having been removed the bottle is inserted nipple end first into the lower portion of the casing 13 until the converging walls 12 engage the base portion of the nipple as indicated in Figs. 1 and 2. The closure 17 is then placed in position and there retained by giving the same a slight turn, whereupon it will be seen that the mouth and base of the bottle are tightly held and cushioned by the resilient members 11 and 22 so that the bottle can be dropped or rolled around without danger of breakage and the correlation of the converging contracted wall 12 with the base 11 of the nipple at the mouth 8 of the bottle will cause said base portion of the nipple to be tightly compressed so that no leakage can occur from the mouth of the bottle into the space between the bottle and the casing 13. It will be seen from my invention that the casing 13 by reason of its peculiar construction and correlation with the base of the nipple and the mouth of the bottle has a double function, since it not only serves to incase the vacuum bottle and prevent the same from all liability of breakage, but it further acts to prevent leakage from the mouth of the bottle into the space between the bottle and casing and furthermore, upon the removal of the closure 17 the bottle can be readily withdrawn from the casing and the nipple and the bottle cleansed or sterilized according to requirements.

It will be evident from the foregoing that by the employment of a vacuum bottle the milk or other liquid nourishment intended for the infant, can be initially heated to any prescribed degree and after being inserted in the bottle, it will retain its initial prescribed temperature for a long period of time and so far as I am aware, I am the first in the art to combine an open ended casing having the contracted converging smaller end correlated with the mouth of a vacuum bottle and a nursing nipple thereon in the manner described and my claims to these features are to be interpreted with corresponding scope.

It will, of course, be apparent that slight changes may be made in the contour of the casing, the mouth of the bottle and the man-

ner of forming the closure of the larger end of the casing, without departing from the spirit of my invention and I do not, therefore, desire to be limited in every instance to the exact construction I have herein shown and described.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. The combination of a vacuum bottle, a resilient nursing nipple secured to the mouth thereof, an open ended casing inclosing said bottle and the base of said nipple and having its smaller end provided with contracted converging walls extended above the mouth of said bottle and projected over and beyond said mouth so as to compress the base of said nipple against said mouth, and a closure for the larger end of the casing, said closure being adapted to contact with the base of said bottle, whereby the latter is held longitudinally immovable in said casing.

2. The combination of a vacuum bottle, a nursing nipple secured to the mouth thereof, an open ended casing secured to said bottle and having its upper end provided with converging contracted walls adapted to compress the base of said nipple against said mouth, a closure removably connected to the base of said casing, and a cushioning device carried by said closure and having its upper surface adapted to contact with the base of said bottle.

3. The combination of a vacuum bottle, a resilient, nursing nipple secured to the mouth thereof, an open ended casing inclosing said bottle and having its smaller end provided with contracted converging ends compressing the base of said nipple against said mouth, and the larger or lower end of said casing being provided with a closure removably connected thereto, said closure having an annular recess internally located within said closure and a resilient cushioning device carried upon said closure and having a portion thereof located in said recess, said cushioning device contacting with the base of said bottle.

4. The combination of a vacuum bottle, a nursing nipple secured to the mouth thereof, an open ended casing inclosing said bottle and the base of said nipple and having the portion engaging said nipple adapted to compress the latter against said bottle, and means for retaining said bottle within said casing.

PAUL O. E. FRIEDRICH.

Witnesses:

E. HAYWARD FAIRBANKS,
C. D. McVAY.