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1,939,777

BOTTLE PROTECTOR AND HEAT INSULATOR

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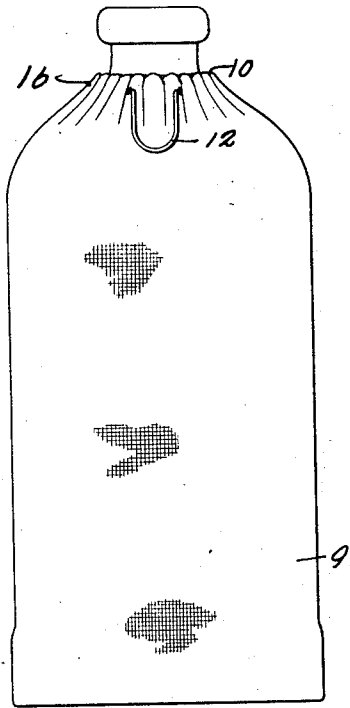


Fig. 1.

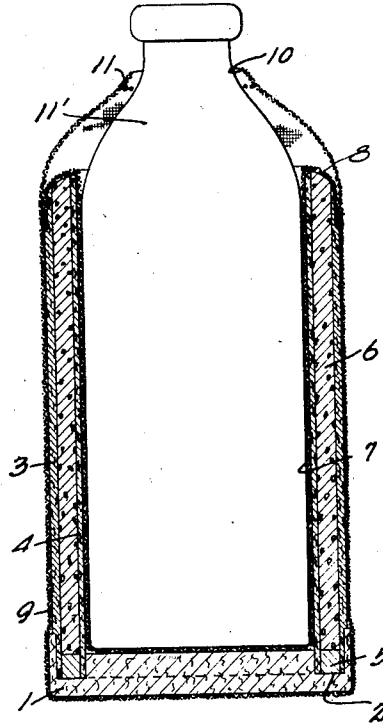


Fig. 2.

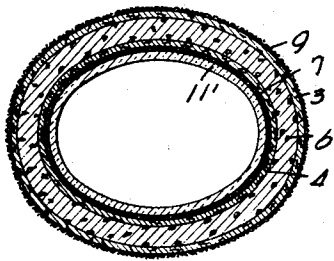


Fig. 3.

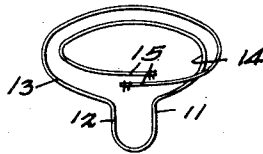


Fig. 4.

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BOTTLE PROTECTOR AND HEAT INSULATOR

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4 Claims. (Cl. 215-13)

The present invention relates to bottle protectors and heat insulators, and it consists in the combinations, constructions and arrangements hereinafter described, together with the method and product of forming the heat insulating material.

The principal object resides in the provision of a protector adapted for receiving a nursing bottle or the like so as to keep the contents of the latter warm over a considerable period of time.

A further object is to provide a protector of the character described for facilitating the handling of the bottle and which is made to serve as means for protecting the bottle against accidental breakage.

A still further object is to provide a protector that is self-supporting and which may be applied to the bottle with facility and ease.

Moreover, I propose to prepare the heat insulating material by a novel process so that the same can be tightly compressed and thus afford an efficient insulator.

It is further proposed to simplify the various structural features necessary for carrying out the above objects in such a manner that the protector may be cheaply manufactured, easily manipulated and readily prepared for the particular function which it is to serve.

Other objects will appear as the specification proceeds, and the novel features will be particularly pointed out in the appended claims.

For a better understanding of my invention, reference should be had to the accompanying drawing, forming part of this application, in which:

Figure 1 shows my protector and heat insulator as applied to a nursing bottle;

Figures 2 and 3 are vertical and transverse sectional views, respectively, and

Figure 4 diagrammatically shows the draw-string that I employ.

Although I have illustrated only the preferred form of my invention, it should be understood that various changes or modifications may be made within the scope of the claims without departing from the spirit of the invention.

In carrying my invention into practice, I provide a base 1 made of cardboard or other suitable material and fashioned with an annular groove 2 therein adapted for receiving the lower ends of vertically arranged tubular members or columns 3 and 4, the former being made of asbestos and the latter of cardboard. The columns are held in spaced concentric relation with each

other by a ring 5 tightly fitted between the columns so as to urge the latter into engagement with the walls of the groove.

The space between the columns is filled with pressed cork 6, which is preferably formed by heating granulated cork to above 140° to 160° Fahrenheit, so that the cork will lose its resilient qualities and will remain in a compressed state when subjected to pressure. The cork thus treated is then mixed with about 5% in weight of casein powder. The adhesive qualities of the casein serves to hold the cork in place when the latter is introduced into the spaces between the columns and compressed.

A cup-shaped lining 7 of soft material is arranged on the interior of the column 4 and the marginal portion 8 is turned back upon itself so as to enclose the upper end of the column assembly. A similar cloth casing 9 covers the outside of the device and has the mouth thereof provided with a draw-string 11 adapted for securing the protector around a nursing bottle or the like indicated at 11'. The protector may be made of any desired shape and size, and should correspond substantially in shape with that of the bottle for which it is designed.

In Figure 4 I illustrate the draw-string as including a loop 12 formed intermediate of the length of the string, with the sections 13 and 14 encircling the mouth of the outer casing in opposite directions, the free ends 15 of the string being attached to the casing in any suitable manner. Upon drawing on the loop, the outer casing is gathered at 16 so as to embrace the neck of the bottle.

Having thus described the various parts of the device, the operation thereof may be readily understood. The protector takes the general shape of the bottle and is adapted for snugly receiving the latter within its confines with the bottle neck projecting from the outer casing. The several columns forming the walls of the protector present a self-supporting structure, and the insulation therein retards the escapement of heat from the contents of the bottle or vice versa. At the same time, the bottle is protected against breakage and facilitates the handling thereof.

I claim:

1. A bottle protector comprising a base having an annular groove fashioned therein, a plurality of concentric tubular members having their lower ends disposed in said groove, a spacing ring pressed between the tubular members for anchoring the latter to the base, heat insulating ma-

terial arranged between the members, and means for securing the assembly around a bottle.

2. A bottle protector comprising a base, a plurality of concentric tubular members anchored thereto, heat insulating material arranged between the tubular members, an outer cup-shaped casing enclosing the assembly, a cup-shaped lining covering the inner surface of the assembly and having the marginal portion turned back upon itself and over the edge of the outer tubular member, and means for securing the open end of the outer casing relative to a bottle introduced into assembly.

3. A bottle protector comprising a base having an annular groove fashioned therein, a plurality

of concentric tubular members having their lower ends disposed in said groove a spacing ring passed between the tubular members for anchoring the latter to the base and heat insulating material arranged between the members.

4. A bottle protector comprising a rigid, cup-shaped member adapted for receiving a bottle therewithin, an outer casing enclosing the member, a lining covering the inside of the member and having the marginal portion turned back upon itself and over the edge of the member, and means for securing the open end of the outer casing relative to a bottle introduced into the assembly.

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