June 19, 1923. 1,459,579

E. DINGMAN

MILK BOTTLE CLOSURE

Filed March 8, 1921

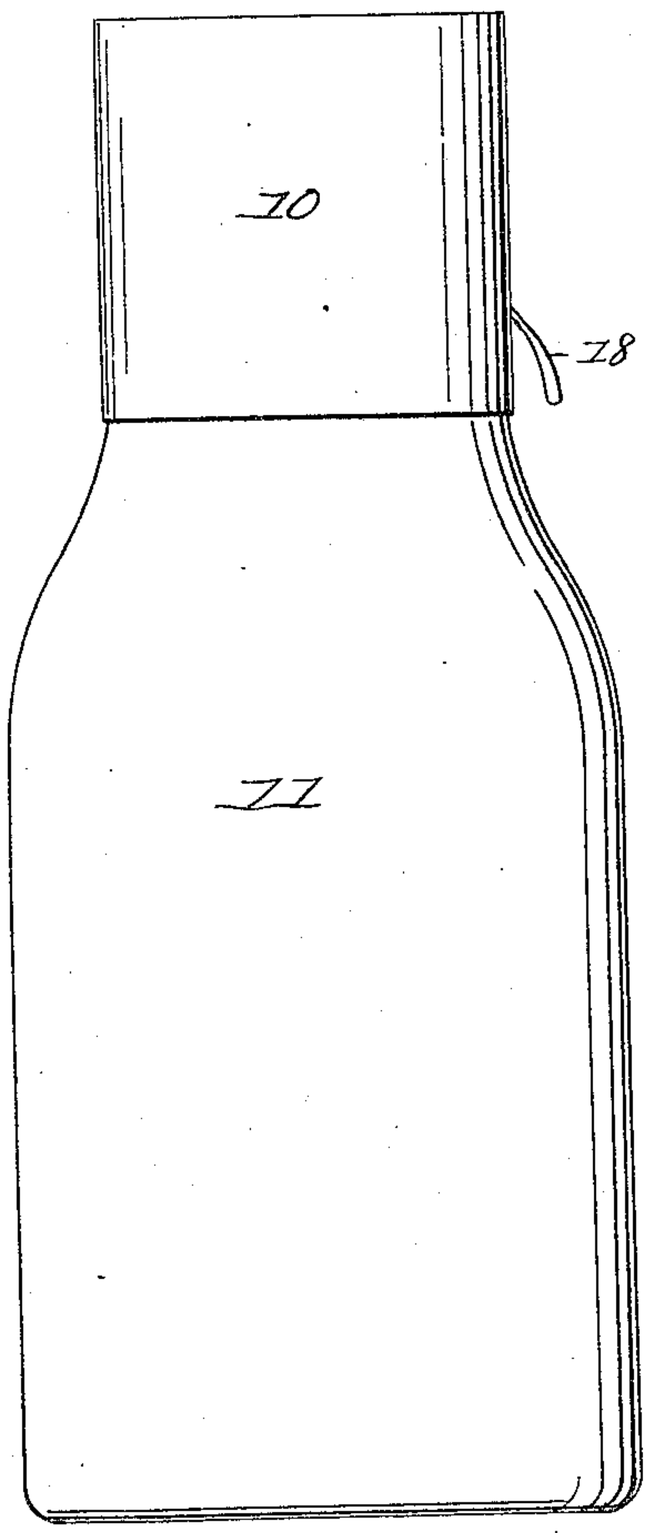
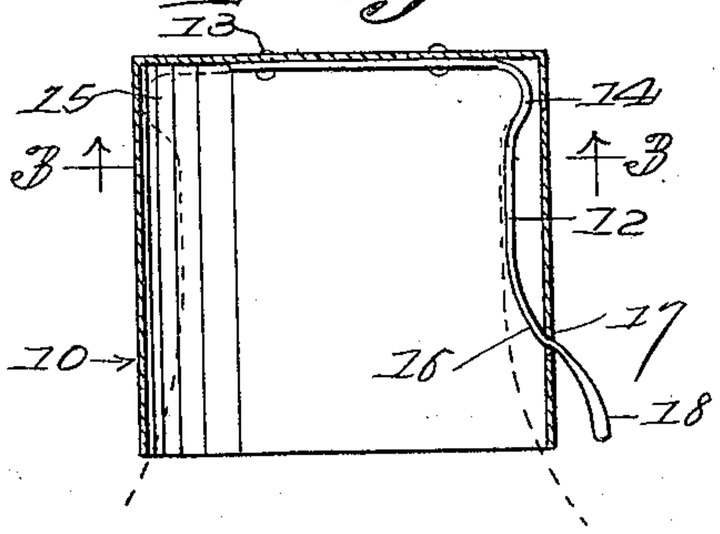


Fig. 1.

Fig. 2.



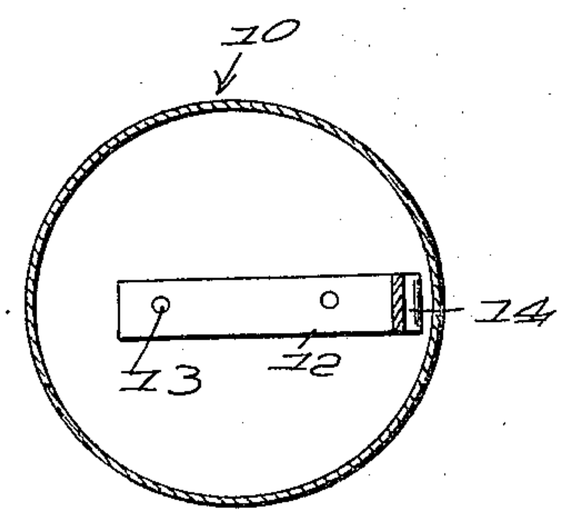


Fig. 3.

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UNITED STATES PATENT OFFICE.

ELMER DINGMAN, OF MICHIGAN CITY, INDIANA.

MILK-BOTTLE CLOSURE.

Application filed March 8, 1921. Serial No. 450,572.

To all whom it may concern:

Be it known that ELMER DINGMAN, a citizen of the United States of America, residing at Michigan City, in the county of Laporte and State of Indiana, has invented new and useful Improvements in Milk-Bottle Closures, of which the following is a specification.

The object of the invention is to provide a simple, inexpensive and efficient milk bottle closure or cap adapted for attachment to a receptacle of the type indicated regardless of the special construction thereof as a means of housing and protecting the mouth of the receptacle against accumulations of dust and dirt and contamination by handling as by the agencies entrusted with the service of the milk to the customers, to the end that the lack of care of the consumer in cleansing the mouth of the bottle before removing the contents thereof may not result in the contamination of the milk or the introduction of germs thereinto; and with this object in view the invention consists in a construction and combination of parts of which a preferred embodiment is shown in the accompanying drawings, wherein:—

Figure 1 is a side view of a cap or closure embodying the invention applied in the operative position to a milk bottle or jar of the ordinary or commercial form.

Figure 2 is a sectional view of the cap.

Figure 3 is a cross sectional view of the same on the plane indicated by the line 3—3 of Figure 2.

The device consists essentially of a cylindrical cap 10, of a diameter adapting it to pass freely over the ordinarily flanged mouth or lip of a bottle 11 of the commercial type, a spring retainer 12 being arranged within the cap as by being attached by rivets 13 or the equivalents thereof to the top or upper wall of the same and having an offset 14 for fitting over the lip which is indicated in dotted lines in Figure 2 at 15 to the end that said retainer extends under the lip and thus yieldingly opposes the removal of the cap from the bottle neck to an extent sufficient to permit of the carrying of the bottle by means of the cap as they are ordinarily carried by the neck when delivered to the consumer.

The retainer arm in the construction illustrated consists of a spring tongue or strip which is outwardly deflected near its free end, as shown at 16, to provide for its ready engagement with the mouth of a bottle whereupon a camming action is effected to deflect the retainer and to permit the entrance of the lip or bead at the top of the mouth reaching the offset portion 14, after which the greater part of the length of the retainer lies against the bottle and below the bead. A corresponding action takes place in the removal of the cap from the bottle but in this instance the lower part of the offset portion 14, passing over the body springs the retainer outwardly so that it may be readily removed. The resistance to removal, however, is sufficient to enable the bottle with its contents to be carried by grasping the exterior surface of the cap.

Also preferably the extremity of the retainer is extended through an opening 17 in the wall of the cap to form a finger hold 18 which may be used to ease the retainer over the lip of the bottle either in applying or removing the same, in the event that the resistance of the spring should be excessive.

Inasmuch as the device serves as a complete sanitary housing for the lip of the bottle the pouring of the contents from the latter by the consumer will not involve the risk of contamination of the contents which has been found a prevalent cause of disseminating diseases, and will insure the reception by the consumer of the milk in proper condition for use with safety, without involving the dealer in any inconvenience or necessitating any change in the method of handling the bottles.

Having described the invention, what is claimed as new and useful is:—

A central closure for milk bottles and the like consisting of a cap for receiving and housing the neck portion of the bottle, and an interior yielding tongue for engaging the lip or bead of the bottle, said retainer consisting of a flat strip of spring material having a portion secured to the inner face

of the top of the cap, an offset portion embracing the rim or bead of the bottle mouth, a lower deflected portion for initially engaging the bottle mouth to impart lateral movement to the retainer, that portion of the retainer between the deflected portion and the offset portion lying against the neck of the bottle, and a terminal finger hold protruding through the opening in the side of the cap and adapted for imparting lateral movement to the retainer to permit removal of the cap.

ELMER DINGMAN.