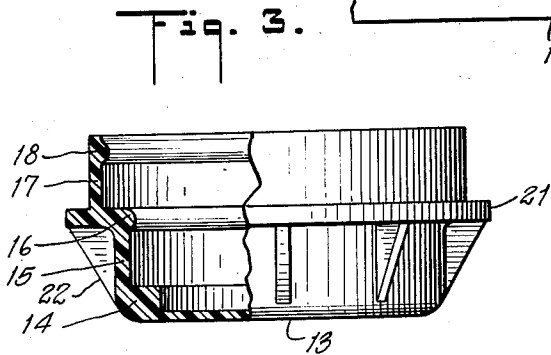
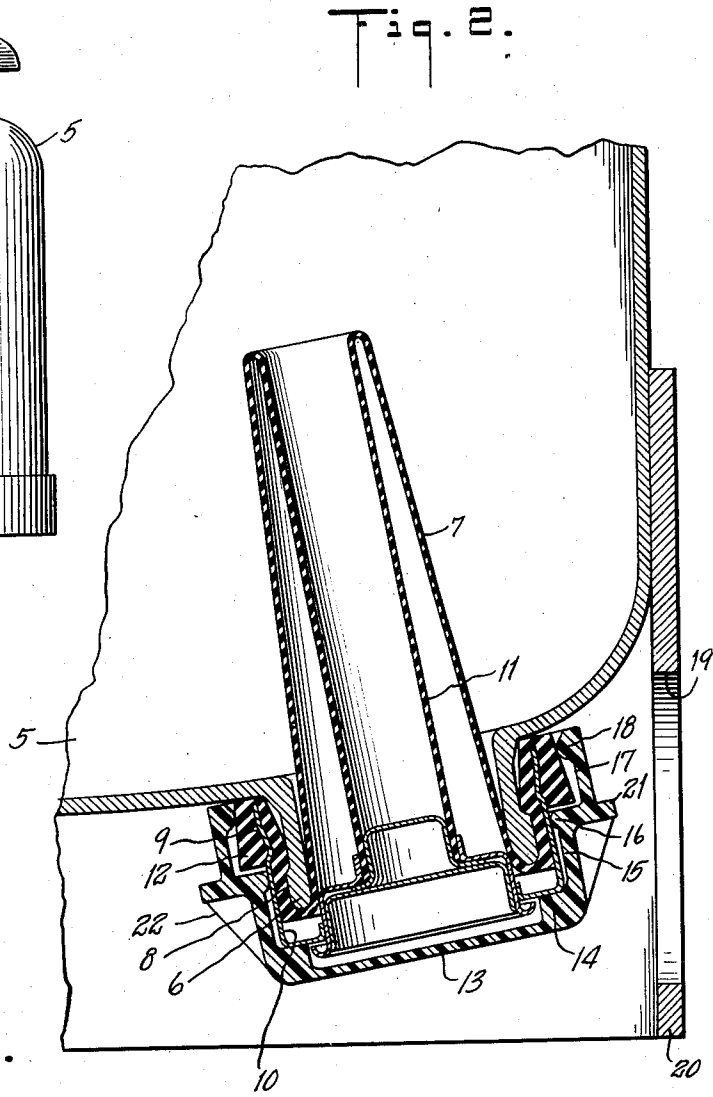
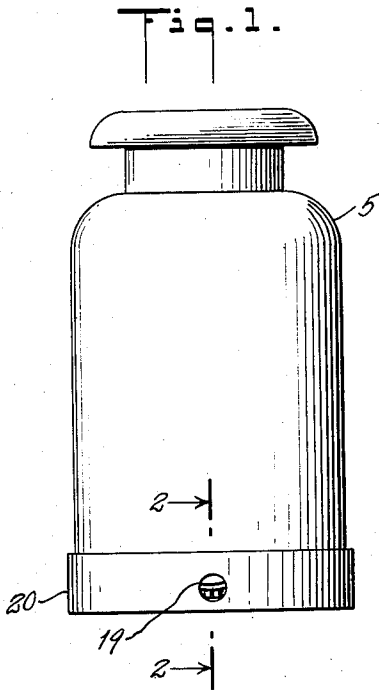


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SANITARY PROTECTIVE COVER FOR INFOLDED
DISPENSING TUBE OF MILK DISPENSER CAN
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SANITARY PROTECTIVE COVER FOR INFOLDED DISPENSING TUBE OF MILK DISPENSER CAN

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1 Claim. (Cl. 222-529)

The invention herein disclosed relates to milk dispensers of the type shown in Patent No. 2,718,985 of September 27, 1955 and No. 2,795,362 of June 11, 1957, in which fluid milk is transported in cans having flexible dispensing tubes infolded in the bottoms of the cans, which can be withdrawn at the point of use and clamped in pinch valves ready for milk dispensing operations.

The objects of this invention are to effectively seal the dispensing tubes in sterilized condition in the cans and to accomplish this by a readily applied cover in the nature of a cap which will provide mechanical as well as sterile protection, which will hold in place during transportation but be easily removable at the point of destination which will be of light inexpensive construction not adding to the bulk of the container and which will not require application of any special fittings or attachments to the can.

Further special objects of the invention are to provide this cover in a form which will cooperate directly with the resilient, compressible base flange or bead by which the flexible dispenser tube is attached to the can, thus utilizing the compressible character of this element to form a seal for the cap.

Other desirable objects attained by the invention and the novel features of construction by which such objects are accomplished are set forth or will appear in the course of the following specification.

The drawing accompanying and forming part of the specification illustrates a present practical embodiment of the invention. Structure, however, may be modified and changed, all within the true intent and scope of the invention as hereinafter defined and claimed.

Fig. 1 in the drawing is a front elevation of a milk dispenser can of the type referred to, having the invention incorporated therewith.

Fig. 2 is an enlarged broken vertical sectional view on substantially the plane of line 2-2 of Fig. 1.

Fig. 3 is a part sectional front elevation of the protective sealing cap.

In Figs. 1 and 2 one of the special milk dispenser cans referred to is indicated at 5 having a tubular outlet collar 6 in the bottom thereof for receiving and holding the flexible dispensing tube 7.

The latter, as more specifically pointed out in Patent 2,795,362 has a base formed with an inner annular channel 8 fitting over the projecting rim of the tubular outlet and an outer reversely faced annular channel 9 to accommodate a binding ring 10.

By this construction the flexible elastic dispensing tube of rubber, plastic or other such material is firmly attached to the can and held so that the introverted end portion 11 of the tube may be withdrawn for dispensing purposes.

This construction has the advantage of leaving a ring 12 of the compressible material forming the base of the tube exposed where it can be utilized as a compressible sealing seat for the cover of the present invention.

The outer sealing ring 12 may have a slight downward flare as indicated in Fig. 2, due to presence of the binding ring 10 within or it may be initially formed with this slight flare or bevel. This is a factor in the firm securing of the cover in place.

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In Fig. 3 the cover is shown as a cap of rigid but somewhat flexible plastic, deep enough to fit over the projecting outlet of the can with dispensing tube attached thereto and comprising an end wall 13 having an annular shoulder 14 engageable with the end of the binding ring 10 and an annular side wall having a portion 15 of slightly greater diameter than the binding ring, terminating in a bead 16 to engage the binding ring and a portion 17 of greater diameter terminating in an inner annular bead 18 to compressively engage the sealing ring portion 12 of the dispensing tube.

There is thus provided a double seal, first the engagement of bead 16 with the binding ring, which mechanically centers the cap on the fitting and secondly the compressible engagement of bead 18 with the resilient sealing ring portion 12.

In addition to covering and sealing the whole base portion of the dispensing tube and tank outlet the cover being of relatively rigid strong material and compressively engaged with the base of the dispensing tube, serves to reinforce these parts and to more firmly lock the dispensing tube in place on the can.

The cover cap can be applied by simply forcing it over the infolded base end of the dispensing tube where it will be firmly secured by friction and by the expansive pressure of the base ring 12. This is sufficient to prevent any accidental displacement of the cover during transportation and in fact any other than authorized purposeful removal.

At the point of destination the cap may be readily removed as by a screw driver or other tool inserted through the opening at 19 in the base flange 20 of the can into engagement with outstanding annular flange 21 on the intermediate portion of the cap. This removal flange forms a reinforcement of the cap as well as a projection for the handling of the cap.

In the illustration inclined fillets 22 connect the flange 21 with the lower end portion of the cap, further reinforcing the structure and permitting the cap to be made light weight, inexpensive and small in size.

These caps, properly sterilized, may be applied over the exposed ends of the dispensing tubes after sterilization of the cans and either before or after they have been filled with milk. They do not in any way interfere with normal handling of the cans and they do not require that any special fittings or attachments be used to make them applicable to the cans. The base ring portions of the mounted dispensing tubes are utilized to provide both a means for frictionally holding the caps in place and for sealing them in position so held.

What is claimed is:

The combination with a milk dispensing can having a tubular outlet and a flexible dispensing tube infolded into said outlet and having a base portion engaged over the end of said outlet, a binding ring surrounding said base portion and an external compressible ring surrounding said binding ring, a sanitary sealing cap having an internal annular bead in engagement with said binding ring and a second internal bead in compressive engagement with said compressible sealing ring portion of said dispensing tube.

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