No. 889,986. PATENTED JUNE 9, 1908.

E. Z. TAYLOR.

MILK RECEPTACLE.

APPLICATION FILED APR. 12, 1907.

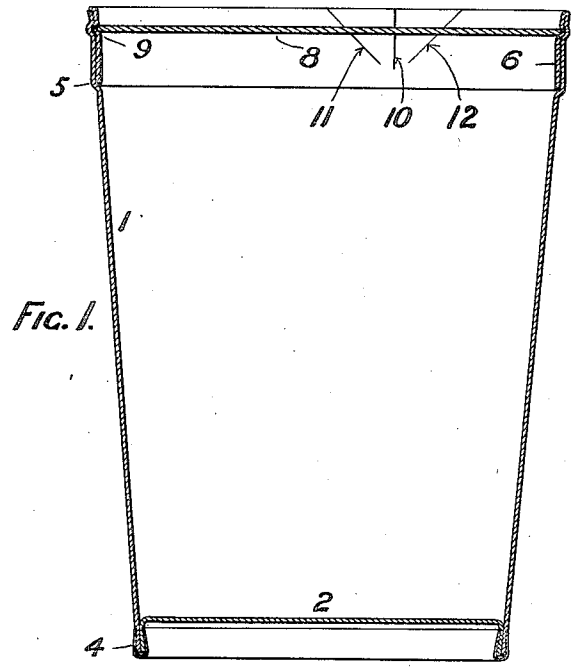


FIG. 1.

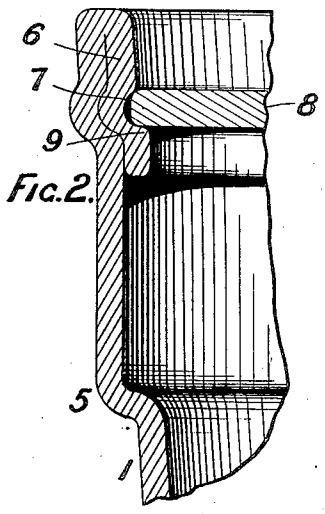


FIG. 2.

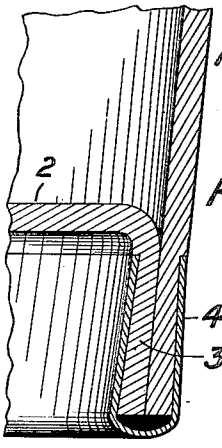


FIG. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

ELMER ZEBLEY TAYLOR, OF LONDON, ENGLAND, ASSIGNOR TO MONO SERVICE VESSELS, LIMITED, OF LONDON, ENGLAND.

MILK-RECEPTACLE.

No. 889,986. Specification of Letters Patent. Patented June 9, 1908.

Application filed April 12, 1907. Serial No. 367,874.

To all whom it may concern:

Be it known that I, ELMER ZEBLEY TAYLOR, a citizen of the United States, residing at 46 Peartree street, Goswell Road, London, England, have invented an Improved Milk-Receptacle, of which the following is a specification.

This invention relates to an improved construction of paper vessel, suitable for containing liquid or other produce, and especially applicable for use in the delivery of milk to customers, the cost of materials and of production being so slight that after having been once used the vessel may be destroyed, thus avoiding the risk of transmission of infectious diseases, while at the same time the retailer is spared the large original outlay for and the cost of collecting and cleaning the cans or bottles usually employed.

Vessels of the class to which the invention relates are usually of taper form, and comprise a paper tube into which a bottom is secured, and a lid or cover.

The present invention consists in the general combination of the parts as hereinafter described.

In the accompanying drawings:—Figure 1 is a vertical section of a complete vessel constructed in accordance with the invention, Fig. 2 an enlarged sectional view of the upper end and lid thereof, and Fig. 3 an enlarged sectional view of the lower end and bottom piece.

In carrying out the invention a paper tube 1, which is of conical form as shown, and a bottom 2, are provided, such bottom 2 consisting of a disk of paper or similar material and being secured in the paper tube 1 in substantially the manner described in the specification of an application filed April 12, 1907, Serial No. 367,873. This arrangement consists in forming the bottom of such size that when its outer edge has been turned down all round, as shown at 3, it will approximately fit the lower end of the paper tube 1, and providing a ring 4 of thin metal of U-section, which is placed over the lower end of the paper tube and the turned down edge 3 of bottom 2 and then by suitable means pressed into the material of which such parts are composed until it is substantially flush with the surface thereof, the inside surfaces of ring 4 being preferably roughened by any suitable means to assist the grip thereof on the paper sides and bottom.

To prevent the vessels becoming jammed when a number are nested together for convenience in packing and transport, an enlargement or projection 5 is formed around the upper end of the vessel, this being effected by the means described in the specification of a further application for patent of even date, consisting in doubling inward the upper edge of the vessel all round for a suitable distance, as at 6, and then pressing out the upper portion of the vessel until the enlargement or projection 5 is formed, against which the upper edge of the vessel below will abut when a number are nested together. The projection 5 may be formed at about the same distance from the top of the vessel as the lower edge of the doubled-in portion 6, as shown in Fig. 1, or at a lower level as shown in Fig. 2, the doubled-in portion being prevented from spreading subsequently by the insertion of the lid or top hereinafter described.

Around the doubled-in portion a groove 7 is formed in the inner surface of the vessel, into which groove is forced the lid employed, consisting of a flat disk 8 of paper or similar material, and which is fitted when the vessel has been filled. It will be seen that the lid 8 is of larger diameter than that of the vessel immediately above the groove or corrugation 7, but a little smaller than the size of the top of the pail, so that such lid will therefore have to be sprung into position in such groove after the vessel has been filled, but that the interior diameter of the vessel at the point 9 below the groove is so much less than the size of the disk 8 that the latter cannot be inserted beyond such point 9, and further that the lid cannot be removed from the vessel without either itself or the vessel being damaged or destroyed.

The parts above described are coated on one or both sides with boiling paraffin wax or similar material in the known manner, and after being heated to a high degree to destroy germs and drive off any surplus of the coating material, and allowed to dry, will be ready for use.

Paper vessels constructed in accordance with this invention may be emptied by first removing the lid and then pouring out the contents in the same manner as from a glass or the like, but to facilitate such emptying it is preferred to weaken the upper edge at any suitable point by indenting same on the lines 10, 11, 12, the weakening indentation

being preferably deeper along the central vertical line 10 than along the inclined lines 11 and 12. The result of this arrangement will be that if the upper edge of the vessel between lines 11 and 12 be forced outwards, as by pressing the thumbs against same, the paper will break along the line 10 and be bent out on the lines 11 and 12, thus forming a lip or spout from which the contents of the vessel can be readily and conveniently poured, without it being necessary to remove the lid 8.

What I claim as my invention, and desire to secure by Letters Patent, is:—

1. A paper vessel having the upper margin of its wall folded inwardly against the inner face of said wall to form a reinforced marginal portion, the two parts constituting said marginal portion being bent outwardly to form an annular recess thereby serving to afford an interlocking engagement between said parts, and a lid adapted to seat in the recess of the inwardly bent portion, said lid and inwardly bent portion coöperating with each other whereby the lid is held in place by the inwardly bent portion and whereby the lid serves to maintain the inwardly bent portion in interlocking engagement with the wall of the vessel.

2. A paper vessel having the upper margin of its wall folded inwardly against the inner face of said wall to form a reinforced marginal portion, said folded margin and wall being bent outwardly to form an annular recess at a point above the free margin of said folded portion and afford an interlocking engagement between the inwardly folded margin and said wall, and a lid seated in the marginal recess, said lid and margin coöperating with each other whereby the marginal portion holds the lid in place and whereby the lid holds the margin in interlocking relation with the wall of the vessel.

3. A paper vessel having the upper margin of its wall folded inwardly against the inner face of said wall to form a reinforced marginal portion; said folded margin and wall being bent outwardly to form an angular recess at a point between the upper reinforced margin of the vessel and the lower free margin of said folded portion thereby affording interlocking engaging parts for said wall and marginal portion, said reinforced portion being bent outwardly above said recess with respect to the wall of the vessel thereby causing the inwardly bent marginal portion to form a shoulder below said recess, and a lid seated in said recess, said lid and inwardly folded portion coöperating with each other whereby the lid is secured in place and whereby the lid serves to hold the inwardly folded margin in interlocking relation with the wall of the vessel.

4. An article of manufacture comprising a vessel having the upper margin of its wall weakened on a vertical line and on adjacent angular lines converging toward said vertical line whereby a spout may be formed by pressing outwardly on said weakened portion.

5. An article of manufacture comprising a vessel having the upper margin of its wall weakened whereby a spout may be formed by pressing outwardly on said weakened portion.

6. An article of manufacture comprising a vessel having its upper margin bent inwardly to form a reinforced portion, and a lid fitting said reinforced portion at a point below the upper margin of the vessel, said reinforced margin being weakened on a vertical line and on angular lines converging toward said vertical line whereby a spout may be formed by pressing outwardly on said weakened portion.

7. An article of manufacture comprising a vessel having its upper margin bent inwardly to form a reinforced portion, and a lid fitting said reinforced portion, said reinforced margin or portion being weakened on a vertical and on angular lines converging toward said vertical line whereby a spout may be formed by pressing outwardly on said weakened portion, said vertical and angular lines extending below said lid.

8. A paper vessel having the upper margin of its wall folded inwardly against the inner face of said wall to form a reinforced marginal portion, said folded margin and wall being bent outwardly to form an annular recess at a point between the upper reinforced margin of the vessel and the lower free margin of the folded portion, thereby providing interlocking engaging parts for said wall and folded portion said reinforced portion being bent outwardly below said recess to form an annular shoulder, and a removable lid seated in said recess said lid when in position forcing said inwardly folded margin into interlocking engagement with the wall of the vessel and also serving to hold the lower edge of said marginal portion into engagement with said shoulder.

In testimony whereof I affix my signature in presence of two witnesses.

ELMER ZEBLEY TAYLOR.

Witnesses:

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