Jan. 23, 1940. F. S. HOGG 2,188,184

POURING CAP FOR MILK BOTTLES

Filed Jan. 6, 1938

Fig. 1.

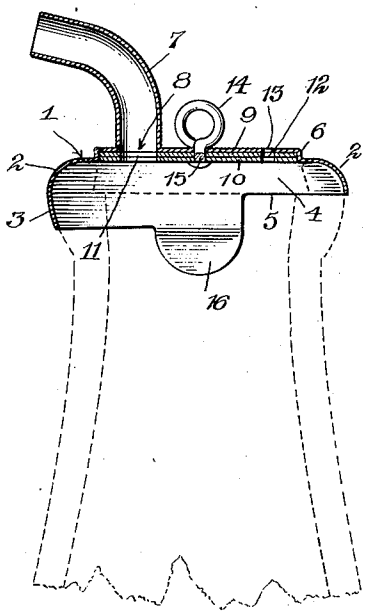


Fig. 2.

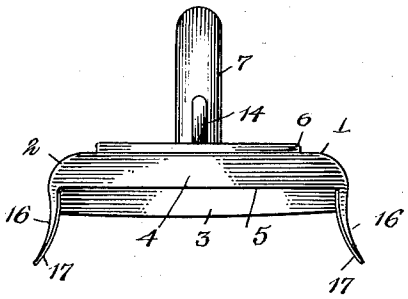
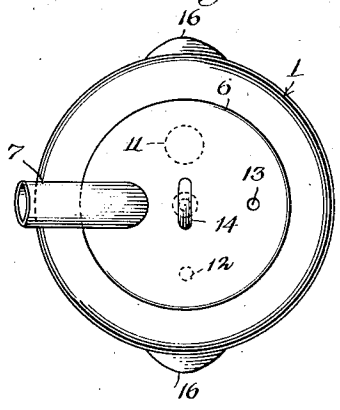


Fig. 3.



WITNESSES

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POURING CAP FOR MILK BOTTLES

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1 Claim. (Cl. 215—76)

The present invention relates to a pouring cap for milk bottles and it has for its object to provide a cap to be fitted over the bead surrounding the open neck of a milk bottle to protect the contents thereof and at the same time permit the contents to be poured from the bottle while the cap is affixed or attached thereto.

A further object is to provide means for detachably holding the pouring cap in place on the bottle neck and to provide a valve mechanism whereby the outlet leading to a pouring spout and also a suitable air vent may be conveniently operated, so that when the valve is in one position the outlet to the pouring spout and the air vent will be open, and when turned to another position the outlet and air vent will be closed.

To the above ends the present invention consists of a pouring cap for milk bottles having a pouring spout and a depending curved flange to fit the bead of the bottle neck opening for detachably and firmly securing the cap to the bottle neck, and a valve for controlling the opening to the spout and an air vent.

The present invention is shown in the accompanying drawing in which—

Fig. 1 shows the device partly in elevation and partly in section, the section being taken on the line 1—1 in Fig. 3, on a portion of the bottle neck being shown in dotted lines;

Fig. 2 is a rear elevation of the pouring cap removed;

Fig. 3 is a top plan view.

Similar reference characters will be employed to designate corresponding parts.

The device comprises a circular cap 1 which may be made of any suitable relatively stiff somewhat flexible material, preferably a metal or a metal alloy which may be stamped up, or it may be made of a suitable plastic material such as Celluloid. It is desirable of course that the material used will be of such a character that it will not contaminate the contents of the bottle.

The cap 1 is formed with a marginal flange 2 curved downwardly and outwardly as shown, and which as shown at 3 will be somewhat deeper or wider extending to a greater distance below the upper surface of the cap than the portion 4, the flange being cut away as at 5 forming a recess which extends to points on the opposite sides terminating at one side of a diametrical line passing through the center, whereas the flange at the wider portion 3 will be inwardly curved to engage the curve of the bottle neck bead beneath the widest part thereof, as shown in Fig. 1 of the drawing.

The cap 1 is struck up at its central portion forming upon its under side a chamber 6. A pouring spout 7 is located upon and projects from the upper surface of the struck-up chamber 6 surrounding a pouring opening 8 therein. The opening 8 permits the contents of the bottle to be poured out of the spout 7 when a controlling valve comprising circular disks 9 and 10 is positioned to place the opening 11 therein, in register with the opening 8 leading to the spout 7. The upper part of the spout 7 will project radially as shown.

The valve is operated by a knob 14 which passes through an opening in the struck-up portion 6 of the cap and having its inner end secured in any suitable manner at 15 to the disks 9 and 10 so that they can be turned by the knob 14 when required. When the valve disks 9 and 10 are arranged with their openings 11 and 12 registering with the opening 8 leading to the spout and the air vent opening 13, the cap will be open. When, however, the valve disks 9 and 10 are moved to the position shown in Fig. 3, the air vent opening 13 and the spout opening 8 (as indicated in dotted lines in Fig. 3) will be closed. In closed position the knob 14 will extend in a direction diametrically opposite to that when the cap is open.

The flange portion 3 is provided at opposite sides with depending oppositely disposed detents 16 slightly flaring outwardly at their lower ends as indicated at 17. These detents are arranged to frictionally engage the bead at the top of the bottle below a line defining its greatest diameter while the flange 2 simply rests upon the upper portion of the bead above that line. The cut-away portion defined by the line 5 permits the cap to be snapped in place on the bottle where it will be held firmly by the detents 16 and the lower inwardly extending portion 3 of the flange.

When in position on the bottle, the cap takes the place of the usual paper seal in so far as sealing the bottle is concerned, and in closed condition will effectively protect the contents of the bottle.

When the disks 9 and 10 constituting the valve are turned to the open position, the contents of the bottle may be poured out through the spout 7 while air will be admitted through the vent openings 12 and 13. The disks 9 and 10 constituting the valve may be made of metal or some suitable plastic material, or if desired the lower disk may be made of metal or plastic material while the upper disk can be made of some relatively soft material such as rubber, forming a

close sealing fit between the valve and the under surface of the chamber 6 of the cap.

I claim:

A pouring cover for milk bottles, comprising a circular cap having a depending marginal flange to fit the head on the milk bottle neck opening, the major portion of said flange being of greater depth than the remainder, clamping detents positioned at the ends of the major portion of said flange and extending below the flange, the central portion of said cover being struck up to form a valve chamber, a pouring spout mounted thereon, a circular valve fitting the chamber openings through the cover, one opening communicating with the spout and the other forming an air vent, openings in the valve registering with the openings in the cover, and a knob affixed to said valve and projecting through the cap so that the turning of the valve may cause the openings in the cover and in the valve to move in and out of register.

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