May 4, 1954 H. LEHMANN 2,677,482

INVERTIBLE POURING HAVING DUAL POSITION CAP

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FIG. 1.

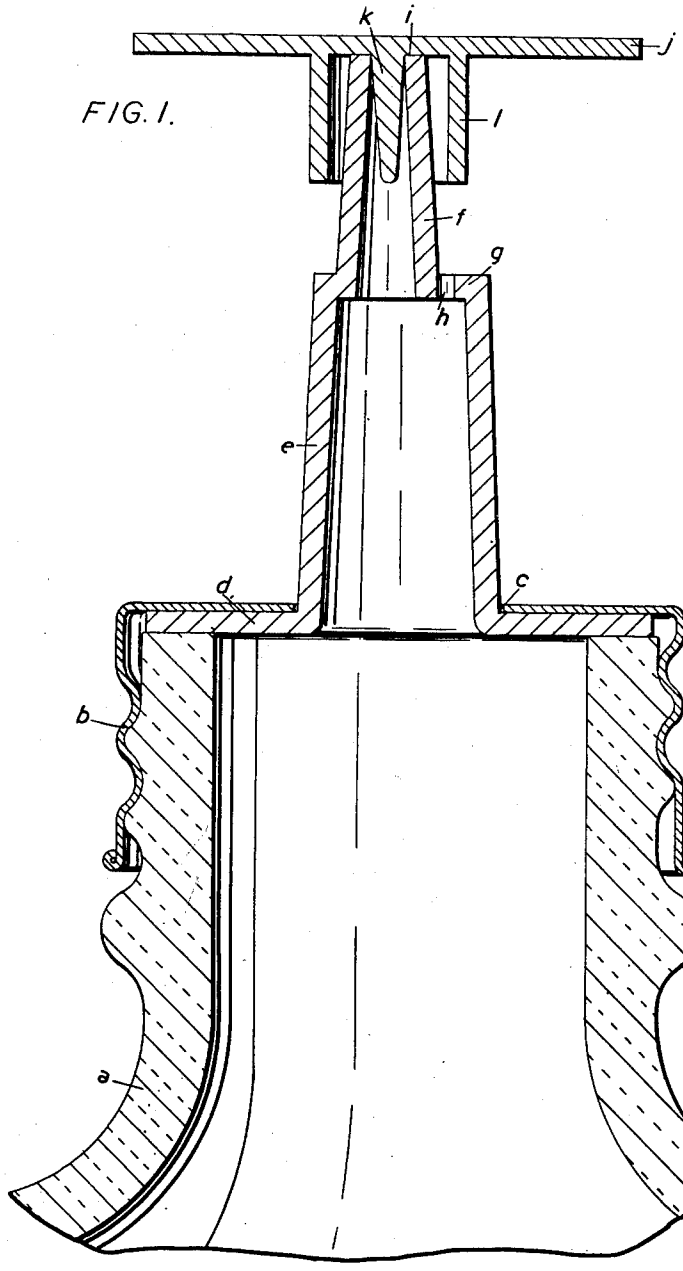

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FIG.2.

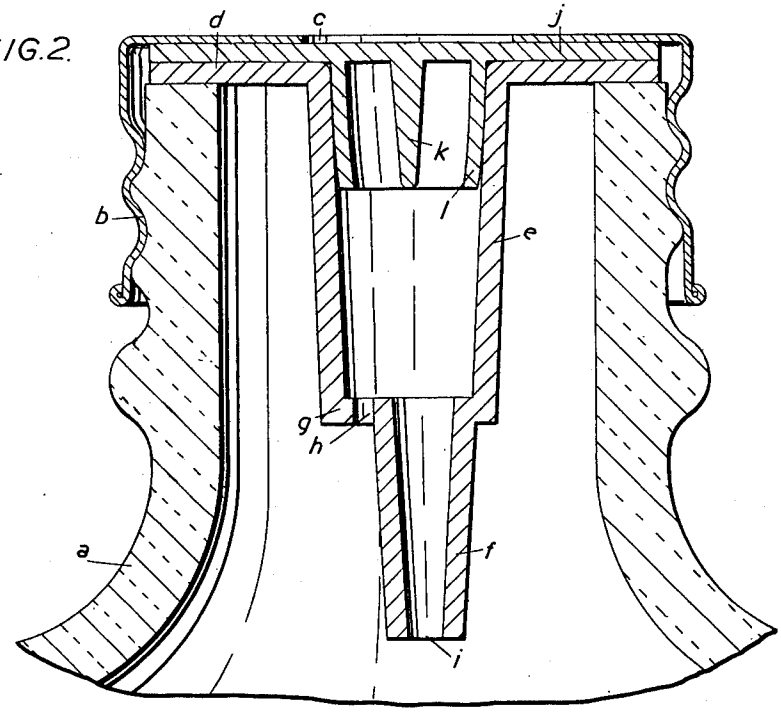
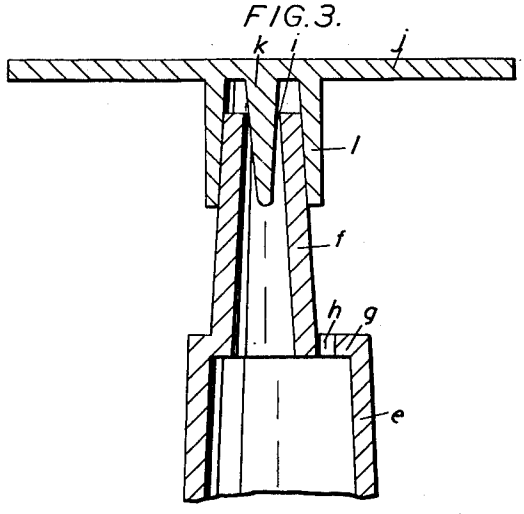


FIG.3.



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UNITED STATES PATENT OFFICE

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INVERTIBLE POURING HAVING DUAL POSITION CAP

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Application June 11, 1952, Serial No. 292,843

Claims priority, application Great Britain June 20, 1951

1 Claim. (Cl. 222—481)

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This invention relates to combined stoppers and pourers to assist in the pouring from a screw capped bottle or other container of quantities of liquids, semi-liquids, powders or the like.

A pourer of this type is known which has an adjustable and reversible spout capable of taking up either of two positions one when it is entirely housed within the container and the other which is its operative position for pouring, and so that the container can be sealed by the pourer and a screw cap in either position.

The manufacture of such pourers has shown that improvements can be made in the construction thereof which facilitate manufacture and use.

A pourer made in accordance with this invention comprises a cap for the container, an aperture in the cap, a spout adapted to be passed through the aperture when required, a flange on the spout adapted to lie closely within the cap, together with a removable closure for the spout which takes the form of a disc having a centrally disposed stub, the disc being adapted to lie in either of two operative positions, in the first of which it lies substantially co-incident with the flange and between the flange and the cap with the stub housed within the flanged end of the spout when the spout is depending downwardly into the container and the second of which positions the stub closes the end of the spout remote from the flange, the spout having been passed through the aperture.

One example of pourer made in accordance with this invention will comprise three pieces only, which pieces are shown in the accompanying drawings.

Figure 1 shows the parts assembled with the pourer in the extended position for pouring but with the closure in position as a temporary stopper.

Figure 2 shows the same parts but with the pourer in the closed or packed position with the closure forming a more permanent seal.

Figure 3 shows a modification of the closure.

A bottle or other container *a* has a substantially normal metal or other screw cap *b*. This is centrally pierced at *c*. The pourer proper is in one piece and comprises a pressing or moulding of plastic, preferably of a flexible and compressible nature so that the parts thereof can be compressed on one or both sides and bend as desired but at the same time retaining sufficient rigidity to hold their position if normally used.

The pourer proper comprises a circular flange *d* of just sufficient size to lie within the screw

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cap *b*. The spout is formed of two slightly conical portions *e* and *f* which are frustro-conical and which are joined by a disc or connecting step *g* lying in a plane parallel with the flange *d*. An air inlet *h* is pierced in this step. The end of the spout *i* remote from the flange *d* is open. The frustro-conical portion *f* is offset from the portion *e* so that the two are not co-axial. It will be seen that the two portions of the spout *ef* and the flange *d* are all formed in one piece of compressible material so that no washers need be used.

The spout can take up one of two positions; it can depend downwardly into the bottle as shown in Figure 2 so that it is totally embraced by the neck of the bottle *a*, which is (when used in conjunction with the closure next to be described) its closed position or it can be disposed pointing upwardly through the aperture *c* in the cap *b* as shown in Figure 1, which is its normal operative position for pouring.

The closure for the pourer is made of similar material and comprises a disc *j* of the same diameter as the flange *d*. Centrally disposed on the disc *j* is a cone *k*, integral therewith, surrounded by a cylindrical sleeve *l* which together form a kind of stub. The cone *k* is of such a size that it will fit tightly into the open end *i* of the spout *f* (see Figure 1) and the sleeve *l* is of such a size that it will fit tightly within the end of the spout *e* adjacent the flange *d* (see Figure 2).

It will be seen that in either position the flange of the pourer and the disc of the closure jointly form washers of deformable, bendable and compressible material and give a good seal.

The inside of the sleeve *l* can be made sufficiently small so as to embrace the outside of the remote end of the part *f* of the spout if desired. This construction is shown in Figure 3.

It will be seen that if the parts are assembled as shown in Figure 2, a sealed bottle is obtained which can be packed and distributed. After purchase the purchaser has only to unscrew the cap *b*, re-assemble the parts as shown in Figure 1 and the article is ready for use. The closure *j*, *k*, *l* forms a temporary stopper for constant use.

The above construction gives a neat and effective pourer having advantages over those at present known.

What I claim is:

A combined stopper and pourer for a screw-capped bottle for liquids, comprising a screw cap for the container, an aperture in the screw cap, a spout adapted to be passed through the aper-

ture when required, the spout being formed of two frustro-conical portions joined together by a step through which is pierced an air inlet, a substantially circular flange at the larger end of the spout formed in one piece with and as an integral part of the spout, the flange being adapted to lie closely within the cap, together with a removable closure for the spout which takes the form of a disc having centrally disposed thereon a stub made up of a cone surrounded by a sleeve, the disc being adapted to take up either one of two positions in the first of which it lies substantially co-incident with the flange and between the flange and the screw cap when the spout has been reversed and depends downwardly into the bottle the outer perimeter

of the sleeve in this position fitting closely within the flanged end of the spout and thus serving to seal the spout and the aperture, and the closure being adapted in its second position for use when the spout has been passed through the aperture when the cone may be pressed on to the end of the spout remote from the flange to act as a stopper.

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