Dec. 20, 1955 T. A. GIANNOS 2,727,644

POURING CAP

Filed July 2, 1953

Fig. 1

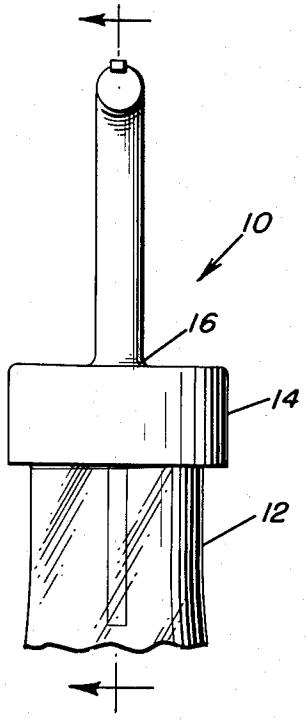


Fig. 2

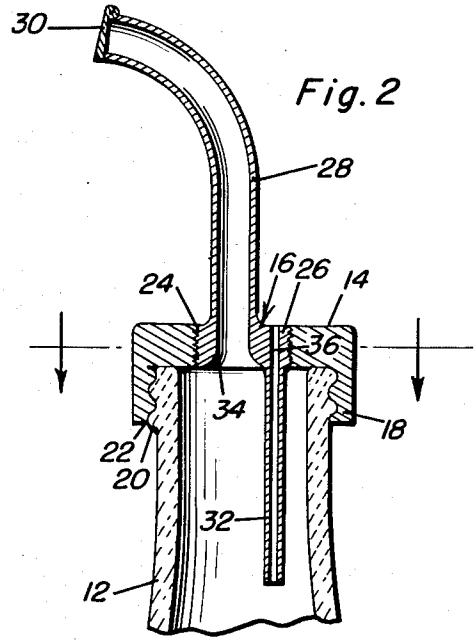


Fig. 4

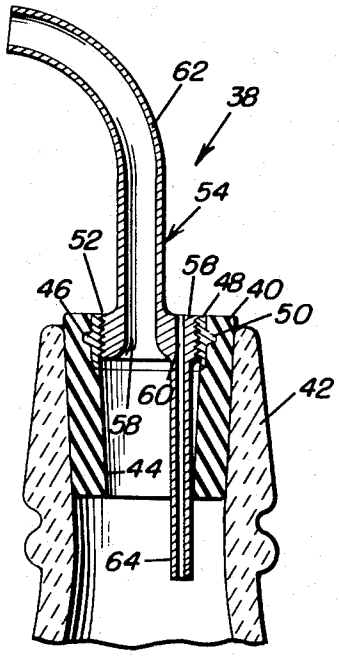
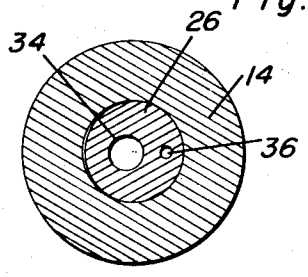


Fig. 3



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POURING CAP

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1 Claim. (Cl. 215—79)

The present invention relates to a liquid pourer and more particularly relates to liquid pourers intended to be placed over the mouth of a bottle to take the place of the conventional bottle closure whereby the contents of the bottle may be poured out when the bottle is tilted.

The primary object of the invention is to provide a liquid pourer for bottles, which pourer includes a cap which may be threaded over the neck of the bottle or inserted into the neck of the bottle, which cap is provided with a removable pourer insert which includes a pouring spout projecting exteriorly of the bottle and a vent tube projecting into the interior of the bottle.

Yet another object of the invention is to provide a liquid pourer whereby a plurality of sizes of pouring spouts may be selectively mounted in the pourer cap without the necessity for providing separate caps.

A still further object of the invention resides in the provision of a liquid pourer which may be easily and quickly assembled and disassembled for cleaning, which is inexpensive of manufacture, durable in use and compact in its assembly.

These, together with various ancillary objects and features which will later become apparent as the following description proceeds are attained by this invention, a preferred embodiment of which is shown by way of example only in the accompanying drawings, wherein:

Figure 1 is a front elevational view of the upper portion of a bottle neck with the pouring cap of the present invention attached thereto;

Figure 2 is a cross sectional view of the pouring cap and bottle neck of Figure 1, taken substantially along section line 2—2 of Figure 1;

Figure 3 is a cross sectional view of the pourer cap taken substantially along section line 3—3 of Figure 2; and

Figure 4 is a cross sectional view in side elevation of a modified form of the invention.

Referring now to the accompanying drawings in detail wherein like reference numerals are utilized to designate similar parts throughout the various views, attention is first drawn to the form of the invention disclosed in Figures 1–3.

In this embodiment of the invention, the pourer cap is designated in its entirety by the numeral **10**. As shown, the pourer cap **10** is mounted on the upper portion of the neck **12** of a bottle.

The pourer cap **10** comprises essentially a disc shaped closure cap **14** and a pourer insert **16**.

The disc **14** is provided with a depending peripheral skirt **18** which is threaded on over the mouth of the bottle neck **12** by means of the cooperating threaded portions **20** and **22** on the external surface of the bottle neck and the inner wall surface of the skirt **18**. The closure cap **14** is also provided with a central or axial threaded bore therethrough.

The liquid pouring insert **16** consists primarily of a cylindrical plug **26** which is threaded into the bore **24**. Formed integrally on the plug **26** is an upwardly projecting hollow pouring spout **28** which is curved forwardly

at its upper end to facilitate pouring. A hinged flap **30** closes the outer end of the pouring spout **28** in such a manner that upon tilting of the bottle, the flap will open to allow liquid to flow through the spout.

Projecting inwardly from and to one side of the pourer spout **28** on the plug **26** is a vent tube **32**. This tube extends into the interior of the bottle to vent the same as the liquid is poured through the spout **28**. As will be noted from Figure 2, the vent tube **32** opens into the upper surface of the plug **26** to communicate the interior of the bottle with the atmosphere whereas the pourer spout **28** opens into the lower surface of the plug **26** to communicate the spout with the interior of the bottle. The bore communicating the spout **28** with the interior of the bottle **12** is designated by the numeral **34** whereas the bore communicating the vent tube **32** with the atmosphere is designated by the numeral **36**. Although in the drawings the spout **28** and the vent tube **32** are shown as being integral with the plug **26**, quite obviously they may be separate members welded or otherwise attached thereto.

Thus, the pouring cap **10** is such that once the closure cap **14** is mounted upon the bottle, it need not be removed for any purpose; however, if it is desired to clean or polish the spout **28** and clean the vent tube **32**, it is only necessary to twist the insert **16** in its entirely out of the bore **24** and the closure cap **14**. Also, in this same vein, if a differently configurated pouring spout **28** or a larger vent tube **32** is necessary to assure the proper dispensing of the liquid from the bottle **12**, a variety of types and shapes of spouts and vent tubes may be provided on identically shaped plugs **26** whereby only the insert **16** need be replaced and the closure cap **14** can remain firmly sealed on the bottle.

In the modified form of the invention shown in Figure 4, the pouring cap is illustrated in its entirety by the numeral **38** and consists of a stopper **40** frictionally seated in the mouth of a bottle neck **42** and having a central bore **44** therethrough. An annular recess or groove **46** is formed in the wall of the bore **44** adjacent the upper end thereof and a metal bushing **48** is inserted into the bore **44** and is provided with an annular flange midway between the ends thereof which seats in the groove **46** to provide a seal for the bushing and to retain the bushing in place in the bore. The bushing is internally threaded as at **52** and a pouring insert **54** in the form of a cylindrical plug **56** is threaded into the bushing.

The plug **56** is provided with a pair of bores **58** and **60** therethrough. A pouring spout is formed integrally with and projects upwardly from the upper surface of the plug **56** and is designated by the numeral **62**. This pouring spout **62** opens into the bore **58** to communicate the pouring spout with the interior of the bottle **42**. Projecting from the lower surface of the plug **56** is a hollow vent tube **64** which opens into the bore **60** to communicate the interior of the bottle with the atmosphere. Thus, in this form of the invention also, the pouring spout and vent tube insert **54** may be removed for cleaning or replacement with different sized spouts and tubes without disturbing the sealing connection of the stopper with the mouth of the bottle.

In both forms of the invention therefore, and particularly in the second form of the invention, when the closure portion or bottle cap portion of the pouring cap becomes deteriorated through use or is not of the size to fit the particular mouthed bottle, it is not necessary to provide a completely new pouring spout arrangement, but it is only necessary to remove the pouring spout from another sized closure cap, such as **14** or **40**, and replace it in a cap that will fit the particular bottle.

From the foregoing description the construction and utility of the invention are believed to be readily appar-

ent. However, since numerous modifications will readily occur to those skilled in the art, after a careful consideration of the foregoing specification taken in conjunction with the accompanying drawings, it is not desired to omit the invention to the exact construction shown and described. But, all suitable modifications may be resorted to which fall within the scope of the appended claim.

What is claimed as new is as follows:

A pouring device for a bottle comprising a closure adapted to close the mouth of a bottle and having an axial opening therethrough, a pouring insert including a spout having a lower end provided with an enlarged eccentric plug integral therewith, a vent tube integral with said plug and depending therefrom at one side of the spout, and an internally threaded bushing in said opening having a flange embedded in the closure, said plug being removably threaded into said bushing.

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