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A. C. OSTERHELD

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DRIPLESS SPOUT

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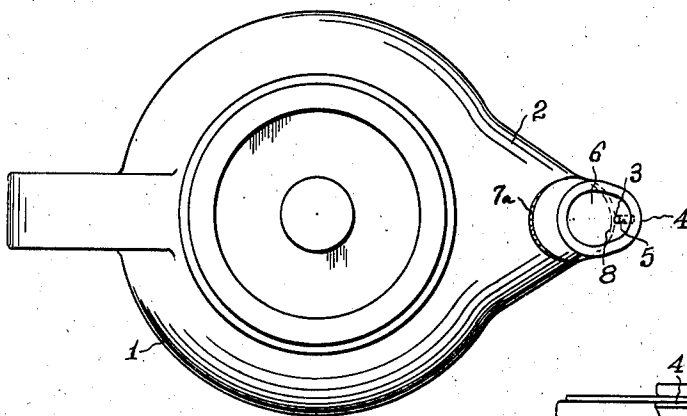


FIG. 3

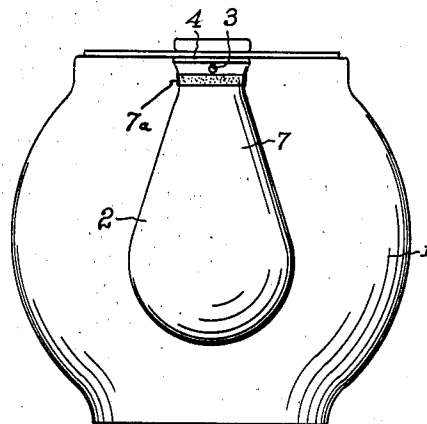


FIG. 2

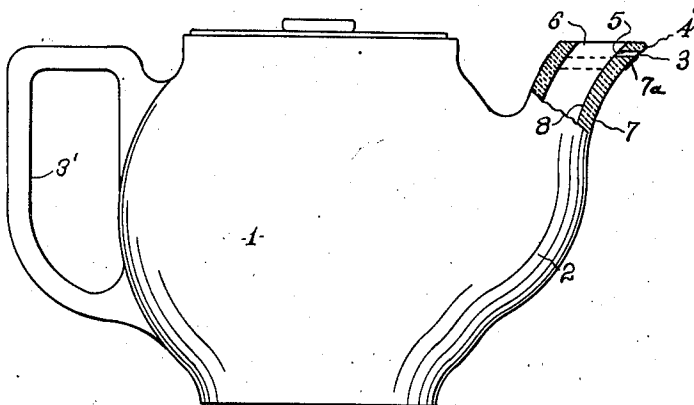


FIG. 1

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DRIPLESS SPOUT

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3 Claims. (Cl. 221-158)

The present invention embodies a novel construction of teapot spout or pouring spout for various types of vessels, which provides means for returning to the vessel liquid that would ordinarily drip down the spout onto a table-cloth or other surface which might be damaged by the liquid.

It is a fact that the desirability of preventing excess liquid from dripping down the spout has long been recognized and certain means have been contemplated. These means, however, of necessity have required that the pouring spout be designed to accommodate the various embodiments of the drip preventing devices and as a result have failed to be made adaptable to a majority of spouts.

It has been proposed that the spout of the pouring vessel be designed to receive a tube extending inwardly and downwardly, and have catching means for the drops of liquid, to return the excess liquid to the vessel, and, likewise, to employ a hole or passage in the wall of the spout, the spout being of special design, on an angle to the spout combined with a channel in the inner surface of the spout which returns the liquid drop to the vessel.

In view of the foregoing, I have invented a simple, inexpensive, and entirely satisfactory drip preventing instrumentality, which, when incorporated into spouts of pouring vessels, will not materially alter the appearance of the spout, and is readily adapted for incorporation into the manufacture of pouring vessels, and may be integral with the spout. The necessity for redesigning the pouring vessel, teapot, or other spout, is eliminated by the use of this invention.

The drip preventing means, which I have devised, requires little if any additional cost in the manufacture of pouring vessels, and obviates any expensive tool, mold, or other operation changes, which would limit its use to large quantity production of pouring vessels.

When liquid is poured from the vessel through the spout in which my invention has been incorporated, and the vessel is returned to an upright position, the drops of liquid that would normally hang on the lip of a spout and often run down to the surface on which the vessel is placed, will be caused to pass to the interior of the spout, through a small diameter hole, by capillary action. The size of the hole in the spout will necessarily regulate this capillary action, and within the limits of practicality, it is desirable to use a hole of the smallest diameter which can be made, and at the same time keep the walls of the hole smooth.

The best location of the hole or passage in the spout, with respect to its circumference, has been found to be about on the line which will intersect the center of the spout and of the pour-

ing vessel, this point being usually very close to the center of the portion of the spout over which the liquid is poured.

In addition to the provision of the capillary hole or passage, a further essential feature of my invention resides in the provision of means to overcome the expanding force of the surface of contact between the dripping liquid and the spout portion of the pouring vessel, due to the attraction of the liquid for the surface, which would cause the liquid to continue downwardly along the surface. This negative tension in combination with the surface tension of the liquid would tend to overcome the capillary action, and, therefore, part of the dripping liquid would not be returned to the vessel.

I, therefore, place a narrow band of a metallic material around the spout portion of the vessel immediately beneath the capillary passage, which effectively interrupts or eliminates the attraction of the liquid to the surface of the vessel, and thus permits the capillary action of the hole to be fully operable.

In the use of the drip preventing means of my invention, in connection with glazed earthenware, or other pouring vessels, having a glazed surface, I preferably provide the narrow band in the form of a metallic over-glaze, such as a gold or platinum over-glaze, in a manner well known to those skilled in the art.

Of course, it is to be understood that a narrow band of plated metal, such as one plated with chromium, may be inlaid in the spout of the vessel, in place of the band of metallic over-glaze, and accomplish the same results as heretofore described, or, in certain cases where a metal vessel incorporates the capillary hole of my invention, by a band of some material placed on the spout of the vessel by a plating process.

The use of a narrow band of the nature above described may be very well used as a decorative feature in the pouring vessel, and, at the same time, serve a useful purpose as in my invention.

With the foregoing essential features in mind, the details of construction will appear more fully in the following specification, and are completely shown in the preferred embodiment in the accompanying drawing, in which:

Figure 1 is a side view of the pouring vessel embodying my invention, the spout being broken away, and shown in section, to illustrate the position of the hole in the pouring spout.

Figure 2 is a front view of the teapot showing more particularly the location of the passage or hole under the lip of the spout.

Figure 3 is a top view of the teapot disclosing the position of the hole or passage.

Referring to the drawing, in Figure 1 there is illustrated a teapot, or the like, obviously a pour-

ing vessel, which is conventional in that it is similar to those commonly used in homes, tea-rooms, restaurants, etc.

The body of the pot is designated 1, its spout is denoted 2, and its handle 3'. The spout 2 has formed therein, the small diameter hole or passage 3, the same being a cylindrical opening with the wall 5, just under the lip 4 of the spout 2, said lip being defined as the outermost portion of the spout, over which the liquid is poured, and with its axis substantially parallel with the bottom of the pouring vessel. The hole 3 connects the outer surface 7 of the spout 2 with the interior surface 8.

Just below the hole or passage 3 is a narrow band of metal 7a, preferably formed as a metallic overglaze, but in certain instances, the spout is inlaid with a plated metal or band, or a band may be provided by a plating process in a manner readily perceived by those skilled in the art.

Such metals, as gold, platinum, or chromium, are among those suitable in the above connection.

When the liquid is poured out of the opening 6 in the spout 2 from the vessel 1, the liquid flows over the lip 4 in the usual manner, and into the vessel or other place to which it is directed.

When the vessel 1 is returned to its normal upright position, a small quantity of liquid is generally left on the lip 4 in the form of a drop, the drop then moving down the lip of the spout and moving over the outer end of the cylindrical hole 3.

The capillary action of the cylindrical hole draws the drop from the lip 4 back through the hole 3 and returns it to the interior of the spout 6 as the vessel is righted to its normal non-pouring position.

The tendency of any excess liquid to move downwardly beyond the capillary hole 3 over the surface 7 is prevented by the previously described narrow metallic band 7a.

From the above, it will be seen that the action of returning the drop to the spout 2 does not need to be accompanied by any additional movement of the vessel.

It is essential for the purposes of my invention, that the hole or passage be of such size and so disposed as to afford capillary action of the liquid

to cause the liquid to be drawn inwardly in the hole.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States, is:

1. A spout for pouring vessels having a hole or passage extending from the outer surface of the spout to the inner surface thereof, and of a cross section to afford capillary action of liquid entering the same, said passage or hole so located just below the pouring lip of the spout that liquid running down the outer surface of the spout will cover the hole and be drawn inwardly into the hole by capillary action, and means below the outer end of the hole or passage to overcome the attraction of liquid for the surface of the spout, enabling the capillary action to be fully effective to draw all of the liquid inwardly in the hole.

2. A spout as claimed in claim 1, in which the last mentioned means comprises a narrow strip of material having a metallic surface positioned on the surface of the spout below the hole or passage in the path of liquid that is not originally drawn inwardly in the hole, the surface tension of the liquid thereby being rendered sufficient to permit the capillary action of the hole to draw the liquid inwardly in the hole when the vessel is tilted back from pouring position.

3. A spout for pouring vessels having a glazed surface, with a hole or passage integrally molded therein extending from the outer surface to the inner surface thereof, said hole of a cross section to afford capillary action of liquid entering the same, said passage or hole so located just below the pouring lip of the spout that liquid running down the outer surface of the spout will pass over the hole and be drawn inwardly in the hole by capillary action when pouring is discontinued, and means below the hole to overcome the attraction of the liquid for the outer surface of the spout, comprising a part in the form of a metallic overglaze positioned on the surface of the spout in the path of liquid not originally drawn inwardly in the hole, the surface tension of the liquid thereby being sufficient to permit the capillary action of the hole to draw the liquid inwardly in the hole when the vessel is tilted back from pouring position.

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