

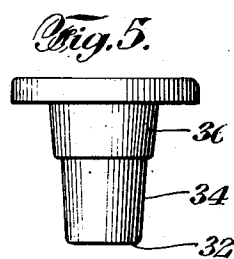
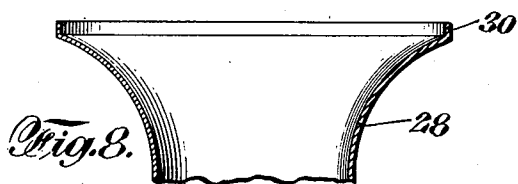
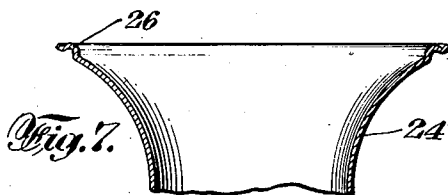
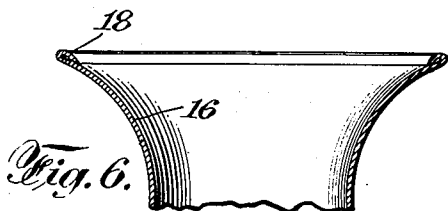
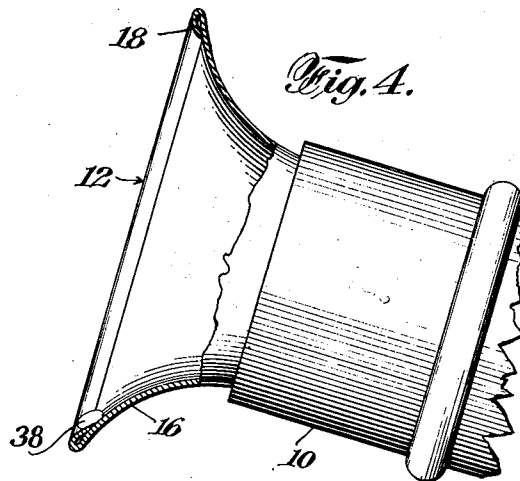
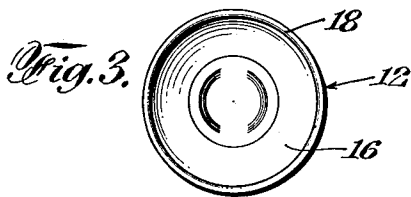
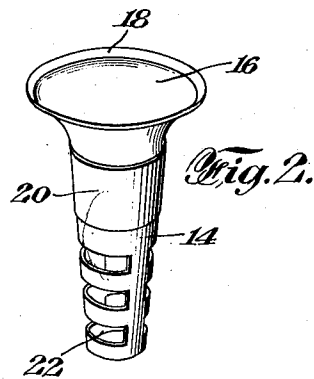
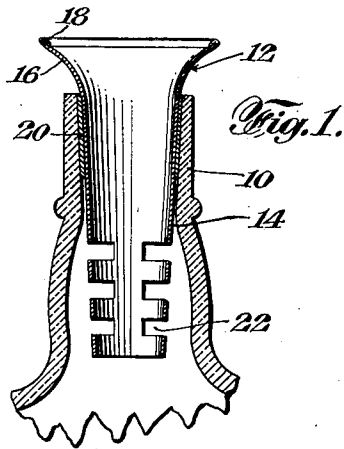
Oct. 25, 1938.

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2,134,281

Pouring Device

Filed June 24, 1936



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2,134,281

POURING DEVICE

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Application June 24, 1936, Serial No. 86,932

8 Claims. (Cl. 215-73)

This invention relates to a pouring device adapted for use with bottles or similar containers.

It is well known that when liquids are poured from bottles or similar containers, the neck of the bottle or container invariably collects liquid and when the pouring is stopped, the collected liquid forms drops which fall from the bottle or else run down the side of the bottle. When liquid is poured from a bottle or like container into a number of glasses on a table, drops will form on the neck of the bottle when pouring is stopped in going from one glass to another, and it is practically impossible to pour into the glasses without dropping liquid on the table cloth or on the surface of the table.

In addition it is well known that the speed of flow is different from a bottle when the bottle is full and when it is only partly full. When the bottle is full and liquid is poured out of it, there is a pumping action because of the intake of large volumes of air into the bottle to replace the poured liquid and it is difficult to pour an even stream from the bottle.

According to my invention I provide a device which enables the pouring of any number of glassfuls in succession without dropping liquid on the table or other surface during pouring. The liquid is poured into one glass and then the flow is stopped to go to another glass and that glass is filled, etc., without the necessity of bringing the bottle to an upright position between pourings. One form of device made according to my invention comprises a tubular member which is fitted into the neck of a bottle, the tubular member having a flared or bell-shaped mouth. At its outer end the mouth is provided with an annular flange or lip which is preferably directed inwardly and which acts to prevent the formation of drops on the outer surface of the mouth. When the pouring of liquid is stopped, the stream of liquid is cut off by the end of the bell-shaped mouth and a drop is caught by the flange or lip within the bell-shaped mouth so that no liquid is dropped from the neck of the bottle. Instead of having an inwardly extending flange, I may provide a flange or annular projection adjacent the outer end of the bell-shaped mouth by a stamping operation or the like. Due to the shape of the mouth of my pouring device, there is no fixed point of pouring as any portion thereof functions as a pouring device.

In order to provide for a substantially even flow from the bottle irrespective of its content I provide a series of vents near the lower end of the tubular member, and during pouring these vents act to break up the in-rushing air into smaller charges so that there is no pumping when liquid is poured from a bottle which is full or

nearly full. These vents also act to give an even flow during pouring at all times.

Referring now to the drawing:

Fig. 1 represents a cross section of a device made according to my invention and positioned in the neck of a bottle, only the top portion of the bottle being shown;

Fig. 2 represents a perspective view of the pouring device shown in Fig. 1;

Fig. 3 represents a top plan view of the device shown in Fig. 1;

Fig. 4 represents an enlarged view of the preferred form of my pouring device in the neck of a bottle, part of the pouring device being broken away to show the arresting and holding of the last drop within the pouring device when pouring of the liquid from the bottle is stopped;

Fig. 5 represents one form of cork or stopper which may be used with my pouring device;

Fig. 6 represents an enlarged cross section showing the bent back flange on the end of the pouring mouth;

Fig. 7 represents another form of my invention having a flared mouth; and

Fig. 8 represents another form of my invention in which the bell-shaped mouth has an annular flange projecting therefrom.

In the drawing the reference character 10 designates the top portion of a bottle or like container with a pouring device 12 constructed according to my invention. The device is preferably made of a single piece of metal but may be made of a plurality of parts if desired. As shown in the drawing the pouring device 12 has a tapered lower tubular portion 14 and a bell-shaped mouth 16. At its outer end the bell-shaped mouth is provided with a rolled or bent back flange or rib 18. This flange or rib extends inwardly of the mouth and is pressed down against the mouth. The mouth cuts the flow away from the bottle when pouring is stopped and the flange or rib 18 holds the last drop within the mouth so that liquid does not run down the side of the bottle and drops do not fall from the pouring device when pouring is stopped. The device with the inwardly directed flange 18 represents the preferred form of my invention.

Intermediate its ends the pouring device 12 is provided with a thin cork 20 which permits a sealing fit with the neck of the bottle or other container. Instead of cork, I may use any other suitable material such as rubber or plastic material such as "plastic wood." By using a thin cork or other sealing member the opening of the neck of the bottle is not substantially reduced and the flow is not affected.

At its lower end the pouring device is formed with a plurality of openings or vents 22 which assist in maintaining an even flow when liquid

is poured from the bottle. These vents are especially useful when the bottle is full or nearly full to prevent any pumping action when the liquid is poured from the bottle. These vents allow
 5 air to enter the bottle at the time of pouring on the upper portion of the device and the pouring is more steady and a greater flow of liquid is obtained.

In Fig. 7 I have shown the top portion of another form of my invention in which the pouring device has a bell-shaped mouth 24 provided with an annular inwardly pressed bead 26 adjacent the outer edge of the mouth, which also func-
 10 tions to prevent the liquid from running down the side of the bottle or from dropping from the pouring device during or after pouring is stopped.

Fig. 8 represents the top portion of a modified form of my invention in which the mouth 28 is bell-shaped and is provided with an annular pro-
 15 jection or flange 30, which is formed substantially concentric with the axis of the pouring device and which extends outwardly from the bell-shaped mouth.

In Fig. 5 I have shown a cork or stopper member 32 having a portion 34 adapted to fit into and stop the opening in the pouring device when the pouring device is in the bottle, and having a larger diameter portion 36 adapted to fit into the bottle or container if it is desired to remove the
 20 pouring device from the bottle or container.

In use when a bottle or other container is full, the cork or stopper in the bottle is removed and my pouring device inserted in place thereof so that the cork or sealing member 20 has a sealing fit with the neck of the bottle. The bottle is now tilted and liquid is poured from the bottle and passes through the pouring device and from the bell-shaped mouth into a glass or glasses. The vents 22 on the lower end of the device function
 25 to break up the in-rushing air into small bubbles so that an even flow is obtained. After the glass is filled to the amount desired, pouring is stopped and the liquid flow is cut off. The liquid does not run down the sides of the exterior of the device during pouring or after pouring and no drops are formed on the exterior of the bell-shaped
 30 mouth after pouring is stopped. After the liquid is cut off by the bell-shaped mouth when pouring is stopped, the flange or rib holds the last drop 38 within the mouth as is illustrated in Fig. 4. Any number of glasses can be poured without dropping any liquid on the table or table cloth beneath the glasses.

In the other forms of my device the bell-shaped mouth also functions to cut off the liquid flow when pouring is stopped. Due to the bell-shaped mouth my pouring device has a pouring edge at its entire periphery so that liquid may be poured from a bottle over any portion of the mouth as there is no fixed point of pouring and the bottle may be held in any position.

What I claim is:

1. A device of the character described adapted to be fitted into the neck of a bottle or the like, including a tubular member flared outwardly at its one end to form a pouring edge, said flared portion at its end having a rib extending inwardly of the device to prevent the dropping of any liquid from a bottle when pouring is stopped.

2. A device of the character described, adapted to be fitted into the neck of a bottle or the like including a tubular member having an outwardly flared portion to form a pouring edge, said flared portion having a flange extending inwardly of
 65 said spout to cut off the liquid when pouring is

stopped and to prevent dropping of liquid from said mouth.

3. A pouring device of the character described adapted to be fitted into the neck of a bottle or like container, including a tubular member having an outwardly flared mouth to form a substantially annular pouring edge, said mouth adjacent its pouring edge having a bent back annular portion to form an inwardly extending rib which functions to arrest and hold the last drop when pouring of liquid from the bottle is stopped so that liquid does not flow over the exterior of said device or the bottle.

4. A device of the character described, adapted for insertion into the neck of a bottle or the like including a tubular member having a pouring edge at one end and a body portion, said body portion having open ends and having a plurality of vents adjacent the lower portion of said device to break up the inrushing air into small bubbles when liquid is poured from a bottle and so as to obtain an even flow from a bottle at all times irrespective of the volume of liquid in the bottle.

5. A device of the character described, adapted for insertion into the neck of a bottle or like container, including a tubular member having an outwardly flared mouth to form a continuous pouring edge and a body portion, said body portion having open ends and having a plurality of vents adjacent the lower portion of said device to break up the inrushing air into small bubbles when liquid is poured from a bottle and so as to obtain an even flow from a bottle during pouring of liquid therefrom irrespective of the volume of liquid in the bottle.

6. A device of the character described, adapted for insertion into the neck of a bottle or like container, including a tubular member having an outwardly flared mouth to form a continuous pouring edge and a body portion, said edge having a greater diameter than the diameter of said body portion, said body portion having open ends and having a plurality of vents spaced longitudinally of said body portion adjacent the lower portion thereof to break up the inrushing air into small bubbles when liquid is poured from a bottle and so as to obtain an even flow from a bottle during pouring of liquid therefrom.

7. A device of the character described, adapted for insertion into the neck of a bottle or the like including a tubular member having a pouring edge at one end and a body portion, said body portion having open ends and having a plurality of vents spaced longitudinally of said body portion adjacent the lower portion of said device to break up the inrushing air into small bubbles when liquid is poured from a bottle and so as to obtain an even flow from a bottle at all times irrespective of the volume of liquid in the bottle.

8. A pouring device adapted to be fitted into the neck of a bottle comprising a hollow conical member having a pouring edge at the larger end that effects a sharp cut-off of the liquid poured from the bottle, a conical-shaped body portion that provides a sealing fit with the neck of the bottle without substantially reducing the opening of said neck, and having open ends and a plurality of vents adjacent the lower end of said conical-shaped body portion to maintain an even flow of liquid from the bottle irrespective of the volume of liquid in the bottle, and said pouring edge being a continuation of said sealing conical-shaped body portion.