Sept. 14, 1937. C. H. EDMUNDS 2,093,189

ORIFICIAL FIXTURE

Filed Jan. 21, 1935

FIG. 1

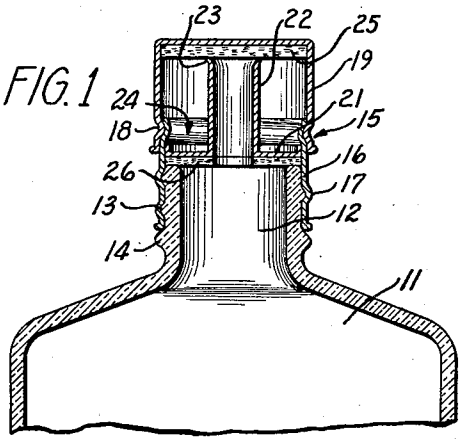


FIG. 2

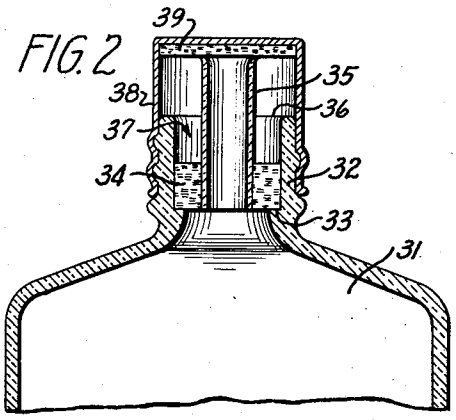


FIG. 3

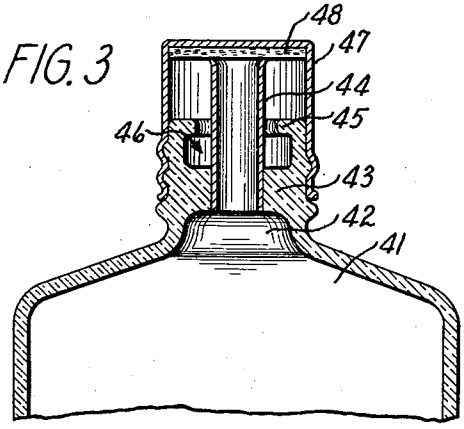


FIG. 4

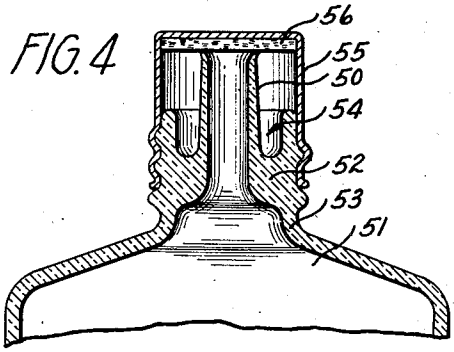


FIG. 5

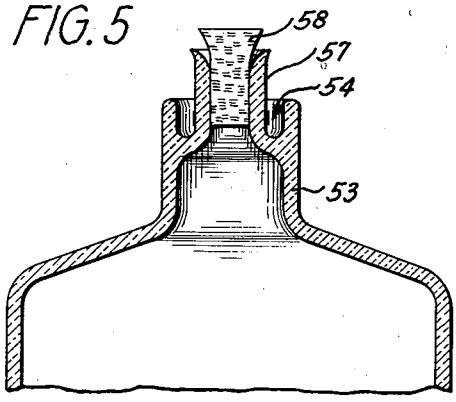
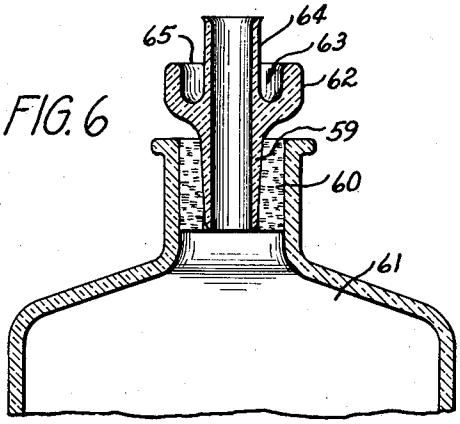


FIG. 6



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ORIFICIAL FIXTURE

Clarance Harold Edmunds, Oak Park, Ill.

Application January 21, 1935, Serial No. 2,679

3 Claims. (Cl. 215—31)

The present invention pertains to discharge means for vials, bottles and analogous containers and more particularly to drip-catching attachments therefor.

The principal object of the invention is to provide a means for rendering ordinary liquid receptacles at all times clean and sanitary.

To achieve the above and other objects this invention contemplates the provision of an orificial fixture for bottles or other similar containers having a projecting spout and a reservoir or well surrounding said spout and subjacently disposed to the pouring lip thereof.

The device according to the present invention assures the full control of the flow of liquids or semi-liquids from the bottle or receptacle irrespective of the viscosity of the fluid and renders more ready the counting of drops therefrom. Briefly, the present invention provides a device which will prevent the contents running down the outside of the container after pouring so that the outside of the container will always present a clean and sanitary appearance, and be free from contamination. The accompanying illustrations depict various embodiments ranging from means integrally formed with the bottle or container to forms constructed independently thereof.

The foregoing and other objects and features of the invention will appear from the ensuing description taken in conjunction with the accompanying drawing, in which

Figs. 1 to 6 inclusive are sectional views of various forms of the device according to the present invention.

In the embodiment illustrated in Fig. 1 the bottle 11 is of the screw cap type wherein the neck 12 is provided with a helical bead or thread 13, and may or may not be provided with an annular stop bead 14. The usual metallic cap for bottles of this type has been replaced with the device according to the present invention, indicated generally by the numeral 15, which comprises a cylindrical portion 16 having a helical channel 17 formed therein adapted to mesh with bead 13. The portion 16 extends above the neck 12 as indicated and is provided adjacent its upper edge with a helical channel which is adapted to mesh with a similarly conformed channel 18 in a cap member 19.

Fitted inside of the portion 16 intermediate the threaded portions thereof and adapted to be held or clamped between the upper threaded portion thereof at the top edge of neck 12 is a flanged disc portion 21, having centrally located therein and extending vertically therefrom a spout 22 preferably of cylindrical conformation. The spout 22 extends or projects above the upper edge of portion 16 a substantial amount and has its upper inner surface tapered off and flared outwardly, if preferred, so as to provide a suitable pouring lip 23 capable of controlling the flow of liquid from the container, so as to enable drops of the contents to be counted if desired. The spout 22 may or may not be integrally formed with the disc 21, and the manner of securing disc 21 to portion 16 is optional. It is obvious, of course, that there need be no securing or attaching instrumentality between the vertical annular or peripheral ridge of disc 21 and the inner wall of portion 16, and that the clamping or holding tendencies of the upper thread or channel of portion 16 upon said ridge is sufficient to maintain the rigidity of the assembly. In fact, the vertical annular ridge may be dispensed with whereupon the upper channel of portion 16 and the channel 17 will cooperate with the bead 13 of the neck 12 of bottle 11 to grip, clamp or otherwise hold the disc 21.

With the arrangement thus described, a reservoir or well 24 is provided which surrounds the spout 22 and is subjacently disposed to the pouring lip 23. The cap 19, as is customary, is provided with a pad 25 of cork or similar material adapted to press down upon the opening of the spout 22 when the cap 19 is screwed onto portion 16 to prevent leakage. A perforated disc or washer 26 of cork or similar suitable material may be provided between the disc 21 and the top of the bottle neck 12 to insure a proper seal thereat.

It is thus observed that with the embodiment shown in Fig. 1, the contents of the container 11 may be poured out through spout 22 and over pouring lip 23 which, when the container is again righted, will retain only a drop or minimum amount of the contents of the container which will tend to run or flow down into the well or reservoir 24, thus being intercepted by said reservoir and preventing the side of the container 11 from becoming contaminated. The residue or drippings that have thus been intercepted by the reservoir 24 will either evaporate or thicken depending on the nature and properties of the contents and will not have touched nor have come into contact with the side of the container 11. This arrangement is especially advantageous in view of the fact that labels usually attached to the side of the container will not become smeared with the contents of the bottle and be thus rendered illegible, if not entirely obliterated.

Having reference to the modification indicated in Fig. 2 the container 31 is provided with a neck portion 32 similar to the form shown in Fig. 1, with the exception that the inside of the neck 32 is provided with a shouldered portion 33. Fitted into the neck 32 and abutting the shouldered portion 33 is member 34 composed of cork or other suitable material having a resilient quality. The member 34 is adapted to carry co-axially therewith, by appropriate attaching means, a vertical spout 35 which extends above the mouth 36 of the bottle. The member 34 is of a thickness less than the distance between the shoulder 33 and mouth 35, thereby providing a well or reservoir 37 below or subjacent to the mouth or orifice of the spout 35. Similar to the form illustrated in Fig. 1, the embodiment shown in Fig. 2 is likewise provided with a screw cap 38, having a sealing pad 39, adapted to screw onto the neck 32 of the bottle or container 31. The mouth of the spout 35 is preferably flared to control the flow of the contents of the container.

Referring to the form illustrated in Fig. 3, the portion 43, which is analogous to shoulder 33 and member 34 of Fig. 1, is made integral with the neck portion 42 of container 41. Tightly held by portion 43 and centrally positioned with respect thereto is a vertically extending spout 44, which as previously indicated, protrudes beyond the mouth of the container. The wall of the neck portion 42 is flanged inwardly at the mouth of the container 41 so as to produce a baffle 45. The advantageous feature of this arrangement resides in the fact that when the container 41 is tipped for the purpose of pouring out its contents through the mouth of the spout 44, any portion of the contents which may have been previously collected in the well or reservoir 46 will be retained therein and prevented from flowing out therefrom. It is understood, of course, that baffle 45 is applicable as well to the embodiments of the invention disclosed in Figs. 1, 2, 4, 5, and 6. The embodiment disclosed in Fig. 3 is shown as provided with a screw cap 47 having a sealing pad 48.

In the embodiment represented by Fig. 4 the spout 50 is integral with the bottle or container 51, the portion 52 between the base of the spout 50 and the neck 53 being conformed so as to produce a well or reservoir 54. This form is shown as provided with a screw cap 55 having a sealing pad 56 acting to close the orifice of spout 50 only.

The form of the invention illustrated in Fig. 5 is similar to that shown in Fig. 4, except that in the former it is contemplated to plug the opening of the spout 57 with a cork or other suitable plug or stopper 58.

According to the modification shown in Fig. 6, the present invention is shown as adapted to bottles or containers of an existing or common type and a device according to the invention is substituted for the cork or stopper usually provided for such bottles. The form represented in Fig. 6 comprises a portion 59 adapted to fit, either directly or through the medium of a cork bushing 60, into the neck of a bottle 61. Surmounting portion 59 is a cup portion 62 forming a well 63 around a centrally disposed vertically projecting spout 64 which projects above the top edge 65 of portion 62. The form of the invention disclosed in Fig. 6 may be sealed by any of the methods shown in Figs. 1 to 5, or it may be used only when pouring and the bottle plugged or sealed in the ordinary manner with a cork or stopper.

The invention herein disclosed may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiment is therefore to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are therefore intended to be embraced therein.

What is claimed is:

1. As a new article of manufacture, an orificial fixture comprising a first portion having a projecting spout surmounting a perforated disc adapted to fit over the orifice of a receptacle, and a second portion having means cooperable with said receptacle to clamp down said first portion onto the edge of the orifice and simultaneously to cooperate with said disc and spout to provide a reservoir surrounding said spout and subjacently disposed to the pouring lip thereof, said means terminating at its upper orificial end in an inwardly directed baffle.

2. As a new article of manufacture, an orificial fixture comprising a projecting spout surmounting a perforated disc portion adapted to fit over the orifice of a receptacle, and means cooperable with said receptacle to hold said disc portion and simultaneously to cooperate with said disc portion and spout to provide a reservoir surrounding said spout subjacently disposed to the pouring lip thereof.

3. As a new article of manufacture, an orificial fixture comprising a projecting spout surmounting a perforated disc adapted to fit over the orifice of a receptacle, means cooperable with said receptacle to hold said disc and simultaneously to cooperate with said disc and spout to provide a reservoir surrounding said spout subjacently disposed to the pouring lip thereof, and an inwardly directed baffle disposed at the upper orificial end of said means.

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