Aug. 31, 1937. B. R. MURPHY 2,091,518

DISPENSER FOR LIQUIDS

Filed May 27, 1935 2 Sheets-Sheet 1

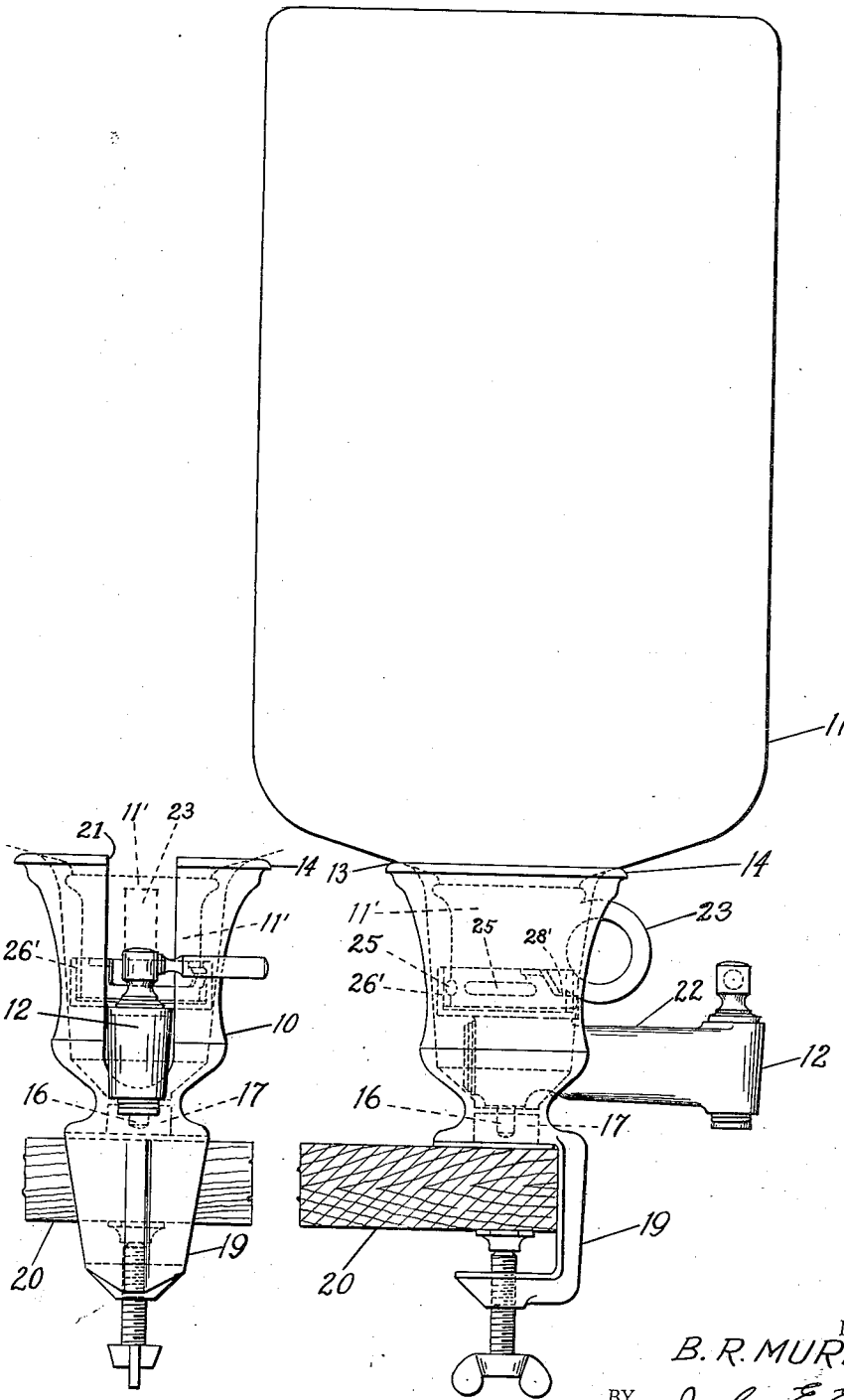


Fig. 2

Fig. 1

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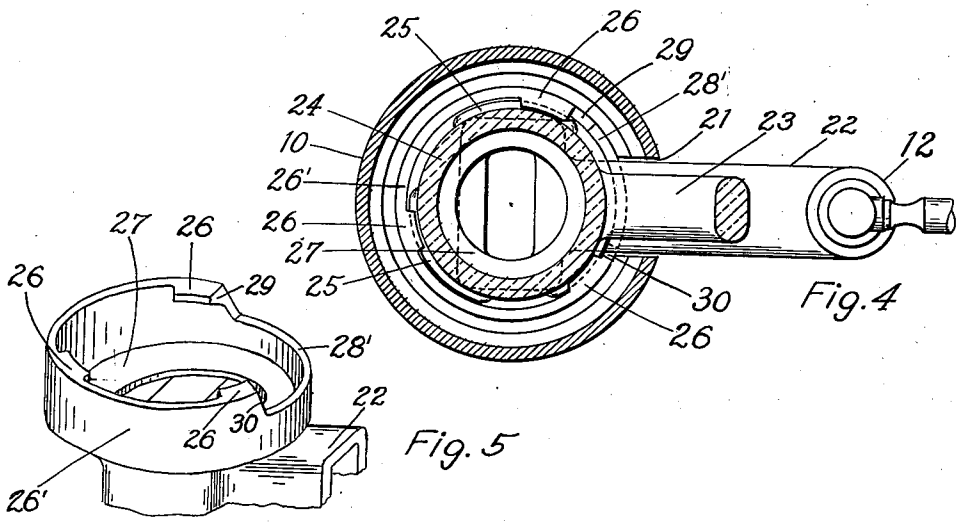


Fig. 4

Fig. 5

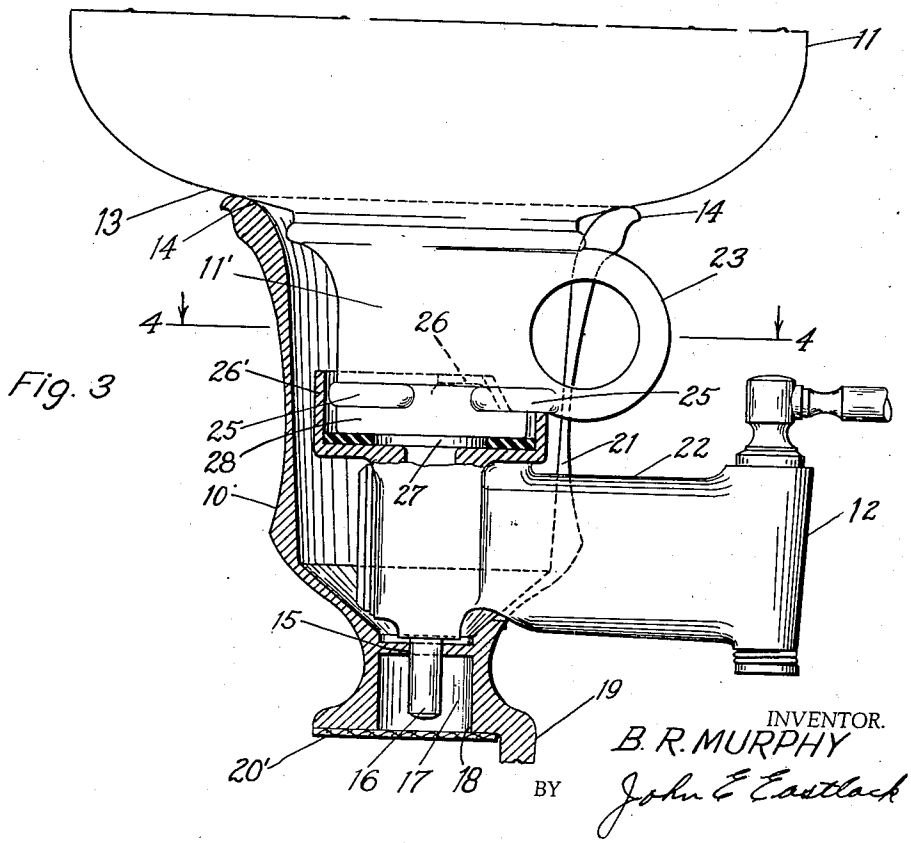


Fig. 3

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DISPENSER FOR LIQUIDS

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11 Claims. (Cl. 225—22)

This invention relates to improvements in dispensing apparatus for liquids or the like.

It has become the custom, especially in the beverage trade, for some manufacturers to pack their beverage products in standard type glass jugs, and to furnish their customers with a dispensing base in which these filled jugs may, after uncorking, be placed in inverted position for use as reservoirs, thus relieving the operator of the work of washing and refilling the special types of reservoirs theretofore used.

Such dispensing bases are often furnished to the customer gratis or leased to him at a small charge with the expectation or express agreement that only the products of the manufacturer supplying the base shall be dispensed therefrom. This practice has lately led to many abuses on the part of the vendors, who, after being supplied with a dispenser base in this manner, often purchase and vend from this equipment cheaper beverages of other manufacturers who do not furnish such equipment, but whose products may be put up in jugs similar to those of his competitor.

The purpose of the present invention is to prevent such abuses by providing a construction for dispensing apparatus as well as for the jugs or reservoirs themselves which will discourage the illicit interchange and substitution above referred to, and which will at the same time be a much improved, simpler, and more sanitary apparatus.

One of the principal objects of the invention is the provision of a dispenser apparatus which is simple of construction, light in weight, and composed of a minimum of parts.

Another important object of the invention is to provide, in a liquid dispenser, a simple assembly the various elements of which are so constructed as to make for quick and easy handling and assembling thereof by even the most inexperienced person.

A further important object is to provide a simple dispenser assembly of the inverted bottle reservoir type, by the use of which the operation of removing an empty bottle and replacing same with a newly filled bottle may be facilitated.

Another and further important object of the invention is to provide, in such types of dispenser assembly, a combined closure member and faucet which can be quickly applied to the jug or other reservoir while the latter rests in an upright position, and which when applied forms a perfect seal between itself and the reservoir both before and after the reservoir is inverted and placed in dispensing position, as well as during any necessary handling thereof, such as in shaking of same for mixing or agitating of its contents.

A still further important object of the invention is to provide, in a dispenser reservoir and its outlet, novel means for securing the outlet or faucet over the mouth of the reservoir.

A further object of the invention is to provide, in a dispenser assembly, a base or stand which will rigidly support standard types of jugs or other containers and their attached dispensing faucets, in inverted position.

A further important object of the invention is to provide a base and faucet for dispensing liquids in which only an exclusive type of reservoir can be successfully used.

A still further object of the invention is to provide a bottle or container which shall be of standard proportions and measurements and accommodated by any of the ordinary types of dispenser base, but which shall also be specially equipped for reception into an exclusive type of dispenser base that will not successfully support other bottles or containers not similarly equipped.

Other and further important objects of the invention will be apparent from the disclosures in the accompanying drawings and following specification.

The invention, in a preferred form, is illustrated in the drawings and hereinafter more fully described.

In the drawings:

Figure 1 is a side elevation of the dispenser assembly of this invention, certain concealed portions being shown in dotted lines.

Figure 2 is a front elevation of the same, certain concealed portions being likewise shown in dotted lines, and omitting all but the neck portion of the reservoir.

Figure 3 is another side elevation, partly in section, showing in detail the more important parts of the apparatus.

Figure 4 is a sectional view taken on the line 4—4 of Figure 3.

Figure 5 is a fragmentary perspective view of the combined bottle closure and faucet of this invention, showing in detail the construction of the cap portion thereof.

As shown in the drawings:

This dispenser apparatus comprises a hollow base or stand 10, in which is mounted a jug or reservoir 11 in inverted position, to the neck portion 11' of which has been securely attached a combined closure and faucet 12 which I shall hereafter refer to as a "faucet cap."

As best shown in Figures 1 and 3, the shoulder 13 of the jug 11 is entirely supported by the upper edge 14 of the base 10, which latter element is provided near its bottom with an aperture 15 which is adapted to receive a stud or the like 16 projecting downwardly from the faucet cap 12 for the twofold purpose of centering the reservoir 11 and the element 12 in the base 10, as

well as to provide the utmost rigidity for the assembly as a whole.

In the preferred form of construction, the lower edge of the faucet cap 12 does not rest upon the bottom or interior wall of the base 10 at any point, its entire weight and that of the jug 11 being supported by the rim or edge 14 of the base 10. Thus a perfectly rigid assembly is always provided and allowance made for any slight variations that may occur in the overall height of the assembly 11—12 or in the contour of the shoulder 13. The hollow bottom 17 of the base 10 located below the aperture 15 is, of course, sufficiently long to fully enclose the stud 16 and prevent the latter from coming to rest upon any surface when the apparatus is completely assembled, and it terminates in an orifice 18 through which any accumulations of dust, etc., can be easily removed from the chamber 17 from time to time.

The base 10 is preferably provided with a clamp 19, by means of which the same can be securely fastened to a counter or other support 20, and a felt pad 20' is positioned between the base 10 and its support 20 to prevent marring of surfaces.

As best shown in Figure 2, the base 10 is cut out to form a slot 21 for receiving the body portion 22 of the faucet cap 12 and the handle 23 of the jug 11. This slot is of a length sufficient to allow the faucet cap 12 to remain fully suspended below the jug or reservoir 11, and the width thereof is sufficient to allow for easy entry of the element 22, but is preferably made narrow enough to prevent any undue sidewise movement of the faucet cap 12 or jug handle 23, thus effectively preventing disconnection of the element 12 from the jug 11 and consequent leakage when the apparatus is in dispensing position.

The connection between the faucet cap 12 and the jug or reservoir 11 is herein shown as the lug and flange type, wherein the outer surface of the bottle neck 11' is provided with a series of slightly inclined lugs 25 spaced apart and adapted to be engaged by a corresponding number of spaced flanges or lugs 26 which are cast integral with the cap member 26' of the faucet cap 12, as best shown in Figures 3, 4, and 5. The lugs 25 are preferably located at approximately the level of the upper portion of the bottle handle 23.

A rubber washer or the like 27 is positioned between the lip 28 of the jug 11 and the interior of the cap element 26' to act as a cushion therebetween as well as to effect a watertight seal when compressed in the operation of attaching the member 12 to the jug 11, which is accomplished by a very slight turning of the member 12 by the operator.

In order to make impossible an incorrect application of the faucet cap 12 and to insure perfect alignment of the members 22 and 23, as well as to render impossible the shearing off of the glass lugs 25 when undue pressure is exerted in attaching the member 12 to the jug 11, the cap member 26' is provided at its front with a cut out slot 28' which fits over and serves as a clearance for the jug handle 23 during the procedure of attachment. This slot 28' is sufficiently long to clear the handle 23 during the entire operation of attaching this part, and the inside edges 29 and 30 of the slot 28' serve, respectively, to enable the operator to start the cap 12 in proper position and to prevent turning thereof beyond a distance sufficient to accomplish a tight seal. Thus the bottle handle 23 must be in the slot 28' or the faucet cap 12 cannot be attached to the jug.

Obviously, if the latter feature is not desired, or if the indiscriminate use of the invention on standard jugs is to be permitted, the faucet cap 12 can be constructed to accommodate the threads or lugs of any standard or special jug now on the market. However, I have found after considerable experimentation that the lug and flange method is far superior, for the reason that it is quicker and more simple of operation, and makes for positive alignment of the jug handle 23 and the element 22, which is not always possible with a screw-thread arrangement. Furthermore, the latter method would not permit of the use of the slot feature for locating the starting point and preventing the applying of excessive pressure in turning the element 12.

It will, of course, be obvious that either construction allows of the application of the ordinary stopper means on the jug itself for packing and transportation purposes, except when, as herein suggested, the lugs 25 are located too far away from the lip of the jug to accommodate the standard stoppers. In the latter case a special slotted cap of the general contour of the element 26' would be indicated, or an extra thread or other fastening means could be provided in the usual location near the lip of the jug and would be of such size and arrangement as to clear the flanges 26 of the element 26'.

The method of assembly of the various elements of this invention is as follows:

The base 10 is set upright upon a proper support. After removal of the ordinary stopper from the jug 11, the latter is set right side up, upon a table or other support, with its handle directed toward the operator. The operator, holding the faucet cap 12 upside down in his right hand, places the cap portion 26' over the mouth of the jug 11, the slot 28' being directly over the bottle handle 23. He presses down lightly on the faucet cap 12, and rotates it anticlockwise until further progress is blocked by contact of the edge 29 with the jug handle 23, whereupon the member 12 will drop down in place for locking. At this point the operator exerts sufficient downward pressure upon the element 12 and rotates the same in a clockwise direction so as to cause the flanges 26 of the cap 26' to engage the lugs 25 of the jug 11, continuing this motion until further movement is blocked by contact of the jug handle 23 with the edge 30 of the cap 26'. The bottle or jug 11 and the faucet cap 12 now form a single unit, which is then inverted and slid into the base 10 in the manner hereinbefore described.

When the jug is empty or if the faucet element is to be cleaned or repaired this unit 11—12 is just as simply removed from the base and placed in upright position upon a support, whereupon the faucet can be removed by the operator by a short anticlockwise turning of the element 12.

This unitary arrangement of the jug and faucet cap also makes for quick and easy removal thereof from the base when it is desired to agitate its contents.

The method of assembling and disassembling other modifications of the invention herein referred to is so similar to that just described, that no further explanation on this point is believed necessary.

I am aware that many changes may be made and numerous details of construction varied throughout a wide range without departing from

the principles of this invention, and I therefore do not purpose limiting the patent granted hereon otherwise than as necessitated by the prior art.

I claim as my invention:

1. A dispensing apparatus comprising an inverted reservoir having a reduced neck portion provided with a laterally projecting handle, a series of lugs on said neck portion, a combined closure and faucet member having a laterally projecting outlet portion and further having a skirt portion for extension beyond said lugs, said skirt portion having a cut out part for receiving said handle, lugs on said skirt portion for engagement with the lugs on said neck portion for securing said member to the reservoir, shoulders at the extremities of said cut out part for limiting relative rotary movement between said reservoir and member, a hollow base for receiving said neck portion of the reservoir to support the latter, said base having a slot for slidably receiving said handle and outlet portion and further having its lower portion formed with an aperture, and a projection on said member for insertion into said aperture to center the reservoir with respect to the base.

2. A dispensing apparatus comprising an inverted reservoir having a reduced neck portion provided with a laterally projecting handle, a combined closure and faucet member having a laterally projecting outlet portion, means for securing said member to the reservoir with said outlet portion and handle in vertical alignment, a hollow base for receiving said neck portion of the reservoir to support the latter, said base having a slot for slidably receiving said aligned handle and outlet portion and further having its lower portion formed with an aperture, and a projection on said member for insertion into said aperture to center the reservoir with respect to the base.

3. A dispensing apparatus comprising an inverted reservoir having a reduced neck portion provided with a laterally projecting handle, a combined closure and faucet member having a laterally projecting outlet portion, means for securing said member to the reservoir with said outlet portion and handle in vertical alignment, a hollow base for receiving said neck portion of the reservoir to support the latter, said base having a slot for slidably receiving said aligned handle and outlet portion, and co-acting means on said member and base for centering the reservoir with respect to the base.

4. A dispensing apparatus comprising an inverted reservoir having a reduced neck portion provided with a laterally projecting handle, a combined closure and faucet member having a laterally projecting outlet portion, means for securing said member to the reservoir with said outlet portion and handle in vertical alignment, and a hollow base for receiving said neck portion of the reservoir to support the latter, said base having a slot for slidably receiving said aligned handle and outlet portion.

5. A dispensing apparatus comprising an inverted reservoir having a reduced neck portion provided with a laterally projecting handle, a series of lugs on said neck portion, a combined closure and faucet member having a skirt portion for extension beyond said lugs and further having a cut out part for receiving said handle, lugs on said skirt portion for engagement with the lugs on said neck portion for securing said member to the reservoir, shoulders at the extremities of said cut out part for limiting relative rotary movement between the reservoir and member, and means for supporting said reservoir in inverted position.

6. A dispensing apparatus comprising an inverted reservoir having an outlet neck provided with a series of lugs and further provided with a projection extending laterally a greater distance than said lugs, a combined closure and faucet member having lugs for engagement with the lugs on said neck for securing the member to the reservoir and further having a recess for receiving said projection, shoulders at the extremities of said recess for limiting relative rotary movement between said member and reservoir, and means for supporting the reservoir in inverted position.

7. A dispensing apparatus comprising an inverted reservoir having an outlet neck provided with a laterally extending projection, a combined closure and faucet member detachably secured to the neck and having a laterally projecting outlet portion normally in substantial vertical alignment with said projection, and a hollow base supporting the inverted reservoir and having a recess snugly and detachably receiving said vertically aligned projection and outlet portion, the walls defining said recess preventing rotary movement of said member and reservoir with respect to the base.

8. A dispensing apparatus comprising an inverted reservoir having an outlet neck, a combined closure and faucet member detachably secured to the neck and having a laterally projecting outlet portion, and a hollow base having said neck and member extending thereinto and supporting the reservoir independently of said neck, said base having a recess snugly and detachably receiving said laterally projecting outlet portion, the walls defining said recess preventing rotary movement of said member with respect to the base.

9. A dispensing apparatus comprising an inverted reservoir having an outlet neck, a combined closure and faucet member detachably secured to said neck, and a base engaging the reservoir above said neck to support the reservoir independently of the neck, said base and member having coacting means for preventing rotary movement of said member with respect to the base.

10. A dispensing apparatus comprising an inverted reservoir having an outlet neck, a combined closure and faucet member detachably secured to said neck, and a base engaging the reservoir in circumferential relation to said neck to support the reservoir independently of the neck, said base and member having coacting means for centering the reservoir with respect to the base.

11. A combined closure and faucet member adapted for use with an inverted reservoir of the type having a neck portion provided with lugs and a laterally projecting handle, said member including a hollow outlet body having a skirt portion adapted to receive the neck portion of such reservoir therein and forming a space opening into said body, inwardly projecting lugs on said skirt portion adapted to engage the lugs on such reservoir to secure the member to the reservoir, said skirt portion having a cut out part adapted to receive the handle of such reservoir adjustably therein, and shoulders at the extremities of said cut out part adapted to abut the handle of such reservoir to limit rotary movement of said member with respect to the reservoir.

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