

J. MANDELBERG.
DISPENSING DEVICE FOR LIQUIDS.
APPLICATION FILED JUNE 22, 1910.

977,112.

Patented Nov. 29, 1910.

FIG. 1.

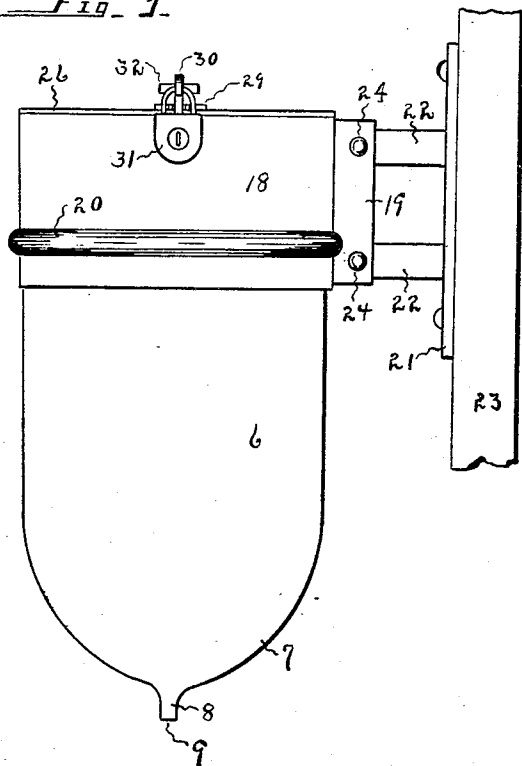


FIG. 2.

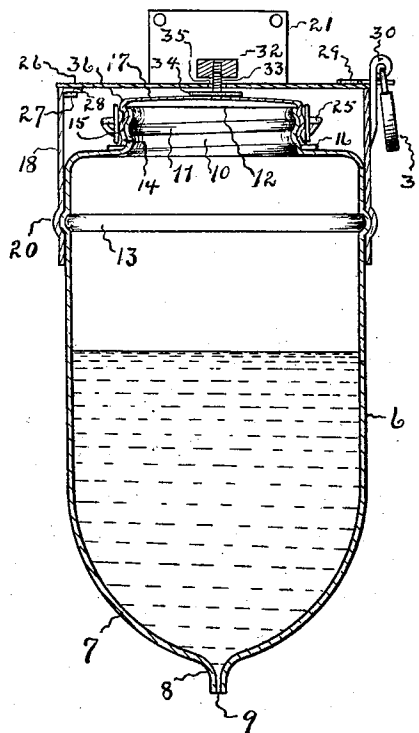


FIG. 3.

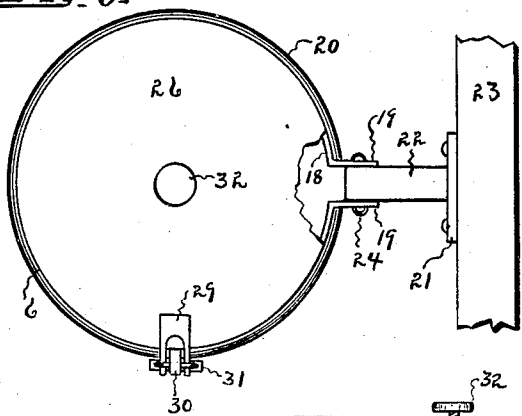


FIG. 4.

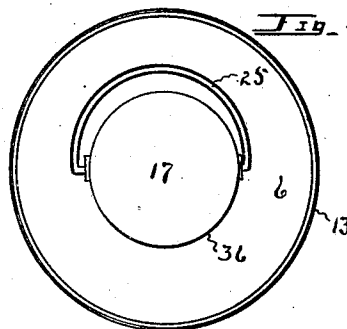
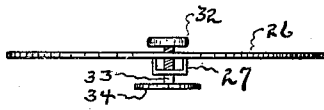


FIG. 5.



Witnesses

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DISPENSING DEVICE FOR LIQUIDS.

977,112.

Specification of Letters Patent.

Patented Nov. 29, 1910.

Application filed June 22, 1910. Serial No. 568,286.

To all whom it may concern:

Be it known that I, JOSEPH MANDELBERG, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Dispensing Devices for Liquids, of which the following is a specification.

This invention relates to a dispensing device for liquids, and has for its object to provide a receptacle which may be disposed vertically as a container, and from which the liquid may be conveniently drawn or ejected in measured quantities.

The invention has reference to a construction which will be convenient in use when filling the receptacle as well as for the removal of the liquid; it also has reference to the form of the container and to the manner of assembling and mounting the parts. It is particularly useful as a dispenser for liquid detergents as it is convenient and sanitary, but it may be employed, of course, in connection with other liquids.

The invention consists of the novel construction, combination and arrangement of parts as described herein and claimed, and as illustrated in the accompanying drawing, wherein,—

Figure 1 is a vertical side view of a dispensing device for liquids, embodying my invention. Fig. 2 is a front view of the same, in longitudinal section. Fig. 3 is a plan view of the bracket and collar, the outer cover or closure plate being partly broken away. Fig. 4 is a plan view of the container. Fig. 5 is an edgewise view of the outer cover or closure plate.

Referring now to the drawing for a more particular description, numeral 6 indicates a container; it is constructed preferably of glass so that it will be transparent and economical in manufacture, but I do not limit myself to the use of that material. It is formed with a downwardly tapered bottom portion 7 with an elongated, terminal stem 8 said stem being provided with a port 9. The upper end of the container is provided with a neck portion 10 with a spiral ridge 11 and an aperture 12; on account of the form of bottom portion 7, the liquid may move with greater facility, and the contents of the receptacle may be entirely removed. At 13 is indicated an outwardly projecting annular ridge formed in the wall of the receptacle.

I provide means for making an "air-tight" closure for opening 12 of the neck, consisting of an annular sleeve 14 having a spiral groove 15 adapted to register with ridge 11 of the neck of the receptacle, the bottom of the sleeve adapted to bear upon the annular pad 16, preferably of rubber, the top of the sleeve being provided with a flexible diaphragm or thin metallic plate 17, normally having a slight outward curvature.

The sleeve and flexible diaphragm provide an integral cap or cover 36 for the receptacle, and by partly rotating the same, a reliable closure may be made for the opening 12, the pad being compressed in a well known manner by the upright sleeve or wall of the cap; and when the receptacle has been filled or partly filled with a liquid and the cap has been adjusted as described, the contents will be retained and, normally, will not pass out of the terminal port 9. At this time, however, if the diaphragm is depressed, by manual pressure thereon, a limited part of the contents will escape from the receptacle through port 9, on account of compression of the air within said receptacle; and when the manual pressure is removed, the metallic plate or diaphragm will return to its normal position.

At 18 is indicated a sleeve or collar having terminal flanges 19, and formed with an outward annular projection 20, thereby providing a corresponding internal groove with which ridge 13 of receptacle 6 may register and become secured at a time when the parts are assembled.

At 21 is indicated a bracket plate having arms 22. The plate may be disposed vertically and secured to support 23; and to horizontal arms 22 the flanges may be secured, by means of rivets 24.

When assembling the parts, receptacle 6 is inserted within collar 18, and flanges 19 are then riveted to arms 22, and when plate 21 is secured to the support the device will be mounted vertically to remain as a fixture. The receptacle may be filled or replenished by removing cap 36. For conveniently removing the cap a bail 25 is provided therefor, and when the bail is raised it may be used as a holding means when rotating the cap for its removal. In order that the device may be maintained in a sanitary condition and to prevent accumulation of dust or water, I provide the inclosing-plate 26.

Plate 26 is circular in form and provided

with loop 27, the same being formed upon its lower side, near its edge; it is adapted to engage lug 28 of collar 18 as a holding means, striding piece 29 being secured upon the upper side and near the edge of said plate, diametrically opposite to loop 27.

Staple 30 is secured upon the wall of collar 18, and when the inclosing-plate is seated upon the upper end of the collar, the prongs or arms of the striding-piece will be disposed upon each side of the staple; and by use of keeper 31, plate 26 may be reliably secured and it provides a convenient closure for the upper end of collar 18, this being desired to prevent unwarranted removal or adulteration of the contents of the receptacle.

At 32 is indicated a push-button which may be threaded upon stem or stud 33, the contact-piece 34 of the stem being seated upon plate 17, said stem being seated in aperture 35 formed at the middle of plate 26; a plunger is thus provided, and when desiring to remove a portion of the contents of the receptacle, a downward pressure upon the push-button will cause said plate to be depressed, for this purpose. Since stem 33 is threaded as mentioned an adjustment may be made whereby head or button 32 will be disposed at greater or lesser distances from plate 26, and this is desired in order to regulate the quantity of liquid to be ejected through port 9, at each operation.

The device provides a very convenient article for toilet purposes. Soap or a similar detergent may be prepared, the same having a semi-fluid consistency, and it may be drawn or ejected in small quantities, as required, when the device is used as described; and, as first suggested, the device may be used to dispense any kinds of liquids.

While some containers may have ports 9 differing in size or capacity as compared with others, an adjustment of the plunger may always be made as already described, so that a suitable quantity of the liquid may be discharged; and on account of the elongated stem 8, the direction of movement of the liquid is controlled.

Having fully described my invention, what I claim and desire to secure by Letters Patent is,—

1. A dispensing device for liquids, comprising, in combination with a supporting collar having an internal annular groove; an upright cylindrical receptacle provided with a neck portion, a downwardly tapered bottom portion with an apertured, terminal stem, and having an annular ridge formed between its neck and bottom; an inclosing cap having a wall provided with a normally convex top; said receptacle adapted to have a seating within said collar, its ridge engaging within said groove; and a plunger member seated upon the top of the inclos-

ing cap and maintained centrally of said collar, one of the movements of the plunger causing a depression of said convex top.

2. A dispensing device for liquids, comprising, in combination with a supporting collar having an internal annular groove; an upright cylindrical liquid container provided with a neck portion, a downwardly tapered bottom portion with an apertured, terminal stem, and having an annular ridge formed between its neck and bottom; an inclosing-cap having a convex top and a wall fitting over said neck portion; said container adapted to have a seating within said collar, its ridge engaging within said groove; an apertured disk removably mounted upon said collar and disposed above said receptacle; and a plunger seated in the aperture of said disk and bearing upon the top of the inclosing cap, a movement of said plunger causing a depression of said convex top.

3. A device for the purpose described, comprising, in combination with a support, a collar mounted upon the support and having an apertured cover; a liquid container having a terminal with an intake aperture, its opposite terminal being provided with a discharge port, said container adapted to have a mounting within said collar with its intake aperture disposed adjacent to said apertured cover; a flexible plate normally having an outward curvature adapted to cover the intake aperture; and a plunger member seated within the aperture of said cover and bearing upon said flexible plate, one of the movements of the plunger operating to depress said flexible plate.

4. A device for the purpose described, comprising, in combination with a support, a collar mounted upon the support and having an apertured cover; a transparent liquid container having one of its ends provided with an intake aperture, its opposite end being formed with a convergent wall with a terminal discharge port, said container being mounted within said collar with its intake aperture disposed adjacent to said apertured cover; a flexible plate normally having an outward curvature adapted to make a closure for the intake aperture; and a plunger member seated within the aperture of said cover and bearing upon said flexible plate, one of the movements of the plunger operating to depress said flexible plate.

5. A device for dispensing liquids, comprising, in combination with a support, a collar provided with a cover and mounted upon the support; a liquid container provided with an intake aperture and a discharge port, said container being mounted within said collar with its intake aperture disposed adjacent to and below said cover; a flexible plate normally having an outward curvature adapted to make a closure for said intake aperture; and an actuating member

movably secured to said cover and adapted to have a bearing upon said flexible plate, one of the movements of said actuating member causing a movement of the curved portion of said flexible plate inwardly of said
5 receptacle.

6. In devices for the purpose described, a supporting collar; a cylindrical receptacle disposed longitudinally within and rigidly
10 secured to said collar and provided at its upper end with an intake aperture, its lower end being formed as a downwardly tapered portion with a terminal discharge port; an inclosing cap within the collar having an
15 upright annular wall bearing upon the wall

of the receptacle and circumscribing said intake aperture and provided with a normally-convexed, flexible top; and a plunger member seated upon the convexed top of the inclosing cap and maintained centrally of
20 said collar, one of the movements of the plunger adapted to cause a depression of said flexible top.

In testimony whereof I have affixed my signature in presence of two witnesses.

JOSEPH MANDELBERG.

Witnesses:

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