Jan. 22, 1929.

1,699,873

F. BRODSKY

PISTON COVER FOR CONTAINERS

Filed Feb. 4, 1926

Fig. 1.

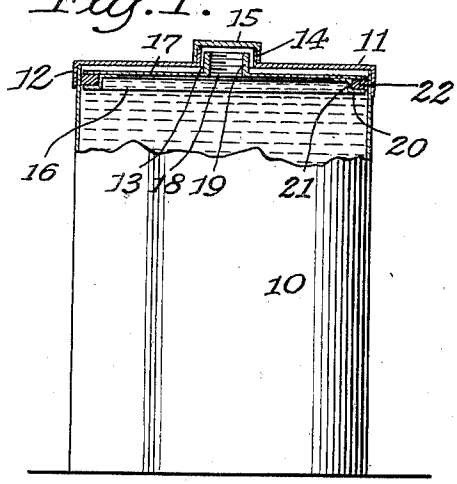


Fig. 3.

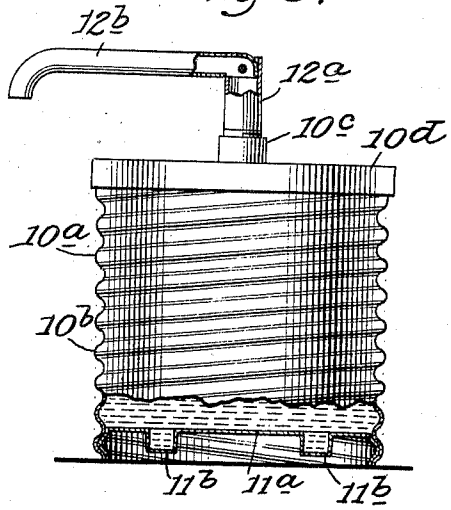


Fig. 2.

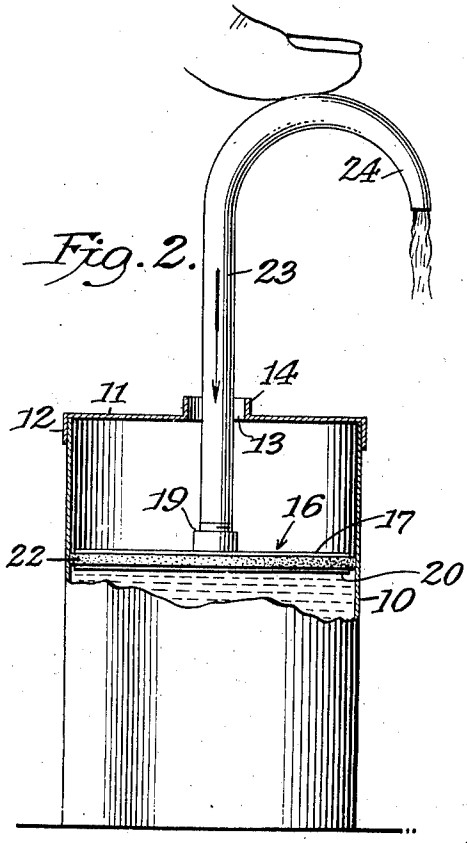


Fig. 4.

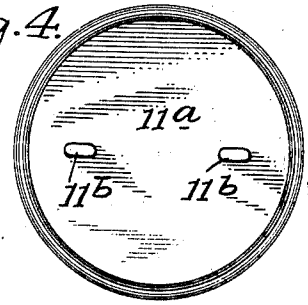
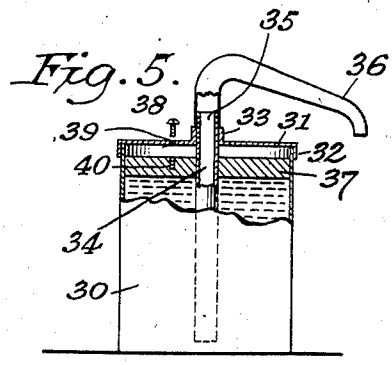


Fig. 5.



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UNITED STATES PATENT OFFICE.

FRANK BRODSKY, OF NEW YORK, N. Y.

PISTON COVER FOR CONTAINERS.

Application filed February 4, 1926. Serial No. 86,088.

This invention relates to fluid or semi-fluid dispensing containers having a simple means for feeding, delivering, discharging or dispensing the contents.

A principal object being to provide a pressure feed for such containers constituting a decidedly simple and inexpensive construction for the purpose of emptying vessels containing milk, beer, paints, oils, grease or any liquid or semiliquid substance.

A secondary object is to devise a form of container and follower device adapted to exert by manual manipulation a positive pressing action on the contents, to discharge the same at intervals, or in a constant uniform flow, or whenever desired.

Another object of this invention is to provide a construction whereby the action of gravitation may be employed to attain results similar to those above enumerated.

For the accomplishment of these and such further objects as will be apparent to those skilled in the art to which this invention appertains, the invention consists of the following construction, combination and arrangement of parts hereinafter specifically set forth and illustrated in the accompanying drawings forming a part thereof, wherein is shown illustrative embodiments of the invention, but it will be understood that such further changes, variations and modifications may be resorted to as fall within the scope of the claims hereunto appended.

In the drawings:—

Fig. 1 is a side view, partly in section, of my improved container, sealed and ready for shipment.

Fig. 2 is a side view showing the manner of discharging the contents by means of a delivery tube on which downward pressure is exerted on the top of the contents.

Fig. 3 is a side view, partly in section, of a modified form of the container, the pressure in this form being applied at the bottom of the contents.

Fig. 4 is a bottom view of the container shown in Fig. 3.

Fig. 5 is a reduced side view partly in section, of a further modified form in which the contents of the container is discharged by the gravity action of a weight forcing the liquid upwardly through a centrally arranged fixed tube and outwardly through a discharge pipe.

Referring now to Figs. 1 and 2 of the drawings, the container 10 is provided with a cover 11, having a circumferential flange 12, preferably soldered, welded or otherwise made fast to the top of the container.

The cover is formed with a centrally arranged opening 13, surrounded by an upstanding flange 14, to receive a cap or cover 15.

In carrying out my invention, I first fill the container nearly to the top, after which I place on the contents a follower or plunger 16, comprising a plate 17 having a central opening 18 surrounded by a sleeve 19 forming a tube which is interiorly threaded, and to the plate 17 is soldered or otherwise secured a ring 20 angularly bent in cross section to provide a groove 21 between it and the said plate 17, to receive a packing 22 of any suitable material to exclude passage of the contents upwardly between said packing and the wall of the container, as will be readily understood.

When it is desired to draw a part or all of the contents from the container, the cap 15 is removed and a pipe or tube 23, having its lower end threaded, is screwed into the sleeve 19, its upper delivery end being bent to form a goose-neck 24, to facilitate the delivery of the contents, which is discharged by simply applying pressure on said tube to force the plunger 16 downward.

In Figs. 3 and 4 of the drawings, there is shown a modified form of the above described construction in which the wall of the container 10^a is formed with spiral ribs 10^b providing threads to carry a correspondingly threaded plunger or follower 11^a, here shown of sheet metal, drawn or stamped to provide lug 11^b whereby the follower may be turned by hand or otherwise to exert upward pressure on the container's contents to force it upwardly and outwardly through a tube 12^a, threaded into a sleeve 10^c communicating with the interior of the container 10^a and carried on the cover 10^d. It will also be self-evident that the previously described form of my invention also may be made with screw threaded engagement between the cover and sides of the can instead of having slidable engagement with a possible packing between them.

The tube 12^a has a hinged extension 12^b which may be moved on its pivot, to reach inaccessible parts of a mechanism for instance, when the device is used for discharging grease or lubricating oils or for other purposes. This pivoted extension may also be used to let the liquid through the pipe line

when in lateral position, and automatically close its passage when turned into the axis of the pipe line, or vice versa, by inserting a suitable valve or cock into the joint, as is well known in the art.

In Fig. 5 of the drawing, there is shown a further modified form of construction in which the container 30 has a cover 31 with a flange 32 soldered or otherwise secured thereto. In this construction the tubular boss 33 has a smooth bore to receive a tube 34 which is carried down into the container to be very near its bottom, and projects somewhat above the boss to form a neck 35 normally closed by a cork or stopper (not shown) and which is removed when the contents are to be discharged to permit a delivery pipe 36, being slipped thereon, and in this construction, a gravity weight 37 is employed to press the contents of the container upwardly through the tube 34, and outwardly through pipe 36.

The weight 37 is normally held to the cover 31 by a screw or other device 38, adapted to pass through a hole 39 in the cover 31 and into a threaded socket 40 in the weight, and as the weight begins its downward pressing action on the contents under the influence of gravitation, the hole 39 serves as an air inlet to break any vacuum which may set up between the said weight and cover, thus permitting free movement of the weight to expel or force out the liquid contents of the container, as described.

It will be noted that my improved container is of such construction that it may be used over and over again by simply removing the cover when empty and refilling it.

What I claim as new, is:

1. In a dispensing container, having a receptacle, a tube held centrally therein with its lower end slightly away from the bottom thereof, a discharge pipe caried by the upper projected end of said tube, and a weighted piston within the receptacle and resting on its contents; a tightly fitting member passed through an opening in the top of the receptacle, said member having means to secure it to the weight inside of said receptacle or to release it therefrom and to free said opening, then to serve as an air inlet.

2. In a dispensing container, having a receptacle, a tube held centrally therein with its lower end slightly away from the bottom thereof, a discharge pipe carried by the upper projected end of said tube, and a weighted piston within the receptacle and resting on its contents; said receptacle having a threaded opening in its top and said weight having a corresponding tapped hole, a bolt adapted to be passed through said opening and into said tapped hole to secure said weight to said top or to release it therefrom, said opening then serving as an air inlet.

Signed at New York in the county of New York and State of New York this 23rd day of January, A. D. 1926.

FRANK BRODSKY.