

April 23, 1940.

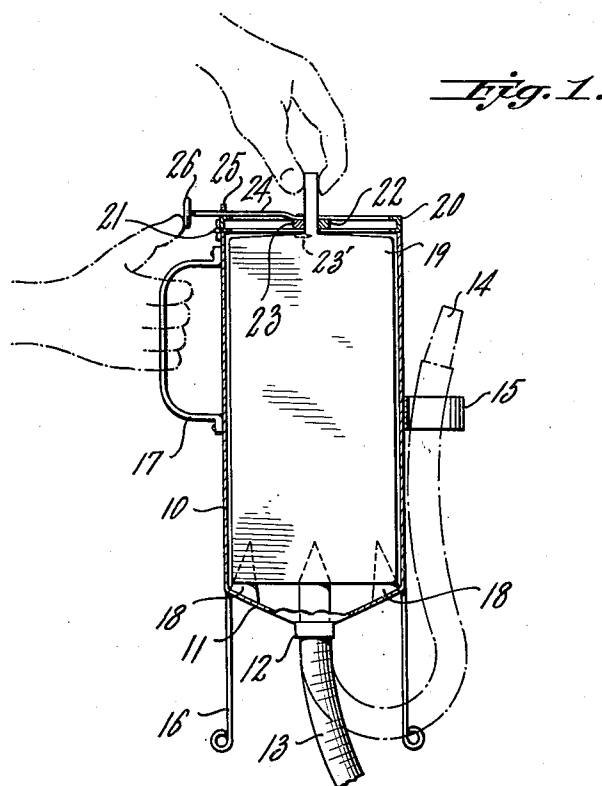
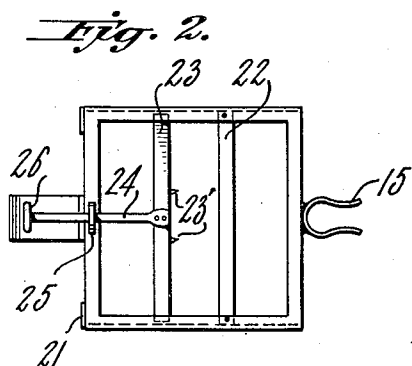
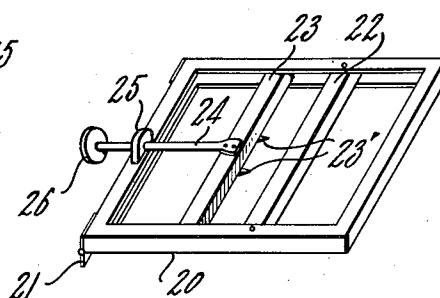
H. F. WATERS

2,197,958

DISPENSING DEVICE

Filed Jan. 16, 1937

2 Sheets-Sheet 1



INVENTOR.
Harry F. Waters
BY
Frank J. Tooley Jr.
ATTORNEY.

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H. F. WATERS

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2 Sheets-Sheet 2

Fig. 4.

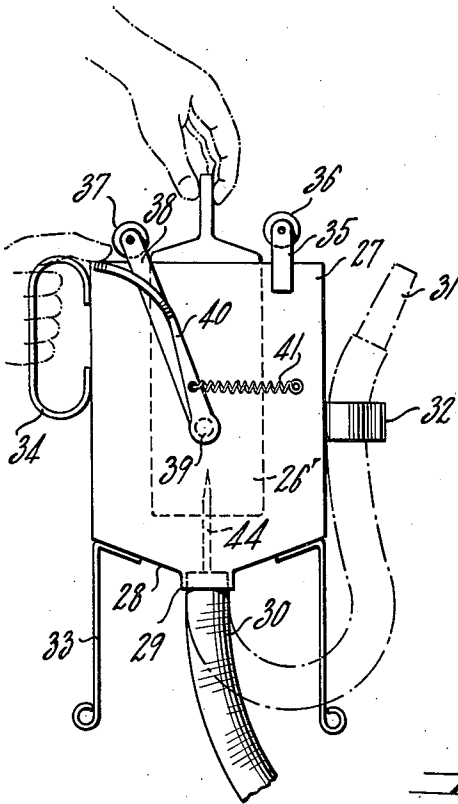


Fig. 5.

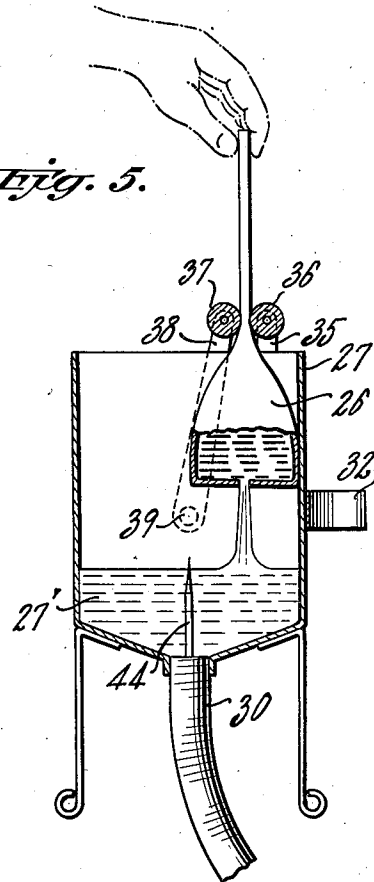


Fig. 6.

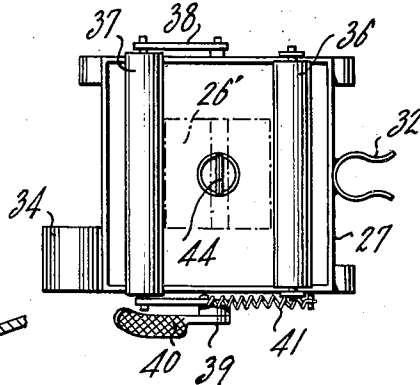
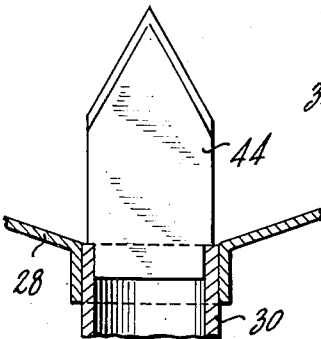


Fig. 7.

INVENTOR.
Harry H. Waters

BY

Frank Looky Jr.

ATTORNEY.

UNITED STATES PATENT OFFICE

2,197,958

DISPENSING DEVICE

Harry F. Waters, New York, N. Y.

Application January 16, 1937, Serial No. 120,839

6 Claims. (Cl. 221-23)

My present invention relates to a dispensing device and, more particularly, to a device for dispensing oil from containers made of flexible material and which, because of their flexibility, are difficult to handle in known types of dispensing devices.

In packaging oil and the like in containers of the type disclosed in my copending application, Serial No. 743,957, filed Sept. 14, 1934, wherein the bag or other container, in which the oil is packaged, is constructed from a suitable flexible liquid-proof material, which is not form sustaining, the oil can be dispensed only with difficulty if known types of dispensers are used. Although a bag or container of this type overcomes the many problems encountered when rigid or non-collapsible containers are used in that it is cheaper to make and does not break or leak when shipped and stored for a considerable length of time, yet due to its flexibility, it does not adapt itself readily to the standard forms of dispensers now used by the various filling stations throughout the country.

It is, accordingly, an object of this invention to provide a dispenser for oil, which has been packaged in flexible containers, wherein the weight of the package is utilized to fracture the same so that the oil may be dispensed readily and without resort to hand manipulation of the package during the opening operation.

Another object of this invention is to provide in the dispenser of the type above described means for squeezing the oil from the container in which it is sold so as to insure the removal of all of the oil therefrom.

A further object of this invention is to provide in a dispenser of the type above described means for forcing the oil from the container as the latter is being removed from the dispenser to the end that the purchaser of the oil is assured of a full measure and the oil company is not forced in order to assure a full measure, as is now the case, to overfill each container by the amount which would normally adhere to the walls thereof.

A still further object of this invention is to provide in a dispenser of the type above described means to fracture and shred the container as it is being positioned in the dispenser so that the same cannot be refilled with other oil.

These and other objects of my present invention will become more apparent from a study of the following description taken in connection with the accompanying drawings in which

Fig. 1 is a side elevation of the one form

of dispenser showing the oil package in operative relation;

Fig. 2 is a top plan view of the dispenser;

Fig. 3 is an enlarged perspective view of the mechanism provided to remove the oil from the container during the dispensing thereof;

Fig. 4 is a side elevation of a modified form of the dispenser showing the oil package in operative position and showing also the first step in the operation thereof;

Fig. 5 is a vertical sectional view of the dispenser showing the last step in the manipulation of the device;

Fig. 6 is a top plan view of the dispenser; and

Fig. 7 is an enlarged detailed view of the means provided to cause a fracture of the oil package when it is placed in the dispenser.

Referring now to the drawings in which like numerals indicate like parts and, more particularly, to the modification disclosed in Figs. 1 to 3 inclusive, there is shown a dispenser comprising a container 10 provided with a bottom 11. The bottom preferably is tapered so as to direct a flow of the oil toward the dispensing opening 12 to which is connected in any suitable manner a flexible hose or tube 13 provided with a conventional form of nozzle 14. A clip 15 is attached to a wall of the container so as to provide means for holding the hose 13 in inoperative position, as shown in dotted outline in Fig. 1. As will be appreciated, during the dispensing of the oil, the hose or tube 13 is swung into position, shown in full lines in Fig. 1, the nozzle 14 being inserted in the crank case of the automobile (not shown). If desired, the container may be provided with depending members 16 forming legs to support the container in upright position. A handle 17 is also provided and is secured to the container in such relation to the operative parts of the dispenser that the attendant may hold the container and operate the dispensing mechanism with one hand.

According to my present invention, I provide in the container suitable means for fracturing the oil package as it is inserted therein. Preferably, these means comprise a plurality of prongs or spikes 18 secured adjacent the bottom of the container in any well known manner. Since, as will be appreciated from an inspection of Fig. 1, the container 10 is only slightly larger than the oil package 19, there will be no tendency for the oil package to fall away from the spikes or prongs. By this construction, once the oil package is fractured, it will be impossible to use it again for refilling purposes so that the package

comprises essentially a single use oil package and the danger of having the container refilled with adulterated oil is minimized and, for all practicable purposes, avoided.

In order to insure the complete removal of the oil from the package, I have provided means to collapse the package as it is being removed from the dispenser so that when the package is completely removed, the oil will have been removed therefrom. Referring now more particularly to Figs. 2 and 3, there is shown a frame 20 hinged to the container by hinges 21, so that when it is desired to use the dispenser, the frame may be swung out of the way of the package being placed therein. After the package has been placed in the dispenser, the frame is swung into the position illustrated in Fig. 1. Extending across the open mouth of the container 10 and rigidly secured to the frame at either end is a bar 22 against which the top of the package may be forced by a bar 23 slidably connected at either end to the frame 20. In order to force the slidable bar against the fixed bar, I have provided a plunger 24 pivotally secured to the fixed bar and extending through a guide 25 carried by one end of the frame and, preferably, that end of the frame hinged to the container 10. In order to facilitate the manipulation of the plunger, a conventional push button 26 may be secured thereto. The bar 23 may also be provided with prongs 23' which serve to shred or rip the oil package as it is being withdrawn from the container 10 and thereby prevent any possible reuse of the package. It will be noted that the relation between the handle 17 and the button 26 and the plunger is such that the operator may force the slidable bar against the top of the package positioned there with one hand leaving the other hand free to pull the container between the fixed and movable bars so that the oil in the package 19 will be removed therefrom as the said package is being drawn between the fixed and movable bars.

Referring now to the modification illustrated in Figs. 4 to 7 inclusive, there is shown a dispenser comprising a container 27 provided with a bottom 28, which is preferably tapered so as to direct a flow of the oil toward the dispensing opening 29 to which is connected a flexible hose or tube 30 provided with a conventional form of nozzle 31. A clip 32 is attached to one wall of the container so as to provide means for holding the hose 30 in inoperative position, as shown in dotted outline in Fig. 4. As will be appreciated, the hose is swung into the position shown, as indicated in full line in Fig. 4, the nozzle being inserted in the crank case of an internal combustion motor in the well known manner. If desired, the container may be provided with depending members 33, forming legs to support the container in upright position. A handle 34 is also provided and, as was the case in the modification shown in Figs. 1 to 3 inclusive, the handle is secured to the container in such relation to the operating parts of the dispenser that the attendant may fill and operate the dispenser with one hand. Secured to the top of the container is provided a pair of brackets 35 on which is mounted a roller 36. Cooperating with the roller 36 and relatively movable with respect thereto is provided a roller 37 journaled in the free ends of a pair of arms 38 pivotally mounted to the container by studs 39. Secured to one of the arms 38 is a lever 40 provided with a portion forming a handle for manipulation by the

thumb of the attendant. The roller 37 is constantly urged toward the roller 36 by means of a spring 41.

In the operation of the device, the oil package 42 containing oil 43 is dropped into the container 10, which may or may not be slightly larger than the oil package, the limiting feature being that the container 10 is always larger than the oil package. When the package is dropped into the container, the bottom thereof will contact with a spike or prong 44 positioned adjacent the opening 21 in the bottom of the container and, due to the weight of the oil and the flexibility and thinness of the material from which the oil container was formed, the spike or prong will force itself through the bottom of the oil package. The attendant then releases lever 40 and, due to the force of the spring, the roller 37 will be brought into contact with the oil package, thus squeezing the walls of the oil package together. As the attendant (Fig. 5) draws the oil package between the rollers, the force of the spring 41 will compress the oil package, thereby forcing the oil through the opening formed by the spike or prong 44. In this manner, all of the oil will be removed from the package by the time the said package is finally drawn between the rollers 36 and 37. Prongs similar to prongs 23' may be provided adjacent the top edge of the container 27 and in line with the oil package.

From the above description, it will be appreciated that I have provided an improved form of dispenser particularly adapted for dispensing oil from containers made of flexible material and which are normally not form sustaining in such a manner that not only is all of the oil removed from the container but the attendant dispensing the same will not be required to attempt to dispense the oil from a flexible container. It will also be appreciated that many changes and modifications in mechanical construction may be made without in any way departing from the spirit or scope of the invention. For example, a plurality of spikes or prongs may be provided in the container for dispensing as illustrated in Figs. 4 to 7 inclusive, without in any way departing from either the spirit or scope of the invention. Similarly, the rollers may be made of any suitable material, such as rubber not affected by oil or other means and the shape of the fixed and movable bars provided in the modification, as shown in Figs. 1 to 3 inclusive, may be varied without in any way departing from the scope of my present invention. It is therefore to be understood that my invention is limited only by the scope of the appended claims which are to be broadly construed.

What I claim as new is:

1. In a dispenser for liquid packages having a container provided with a dispensing opening, means in said container for fracturing said package to open the same, and means for squeezing and collapsing the walls of said package as it is being withdrawn from said container comprising a fixed member and a member movable relative thereto between which said package is withdrawn, means for moving said movable member toward said fixed member to exert a squeezing force on said package, and means for destroying said package sufficiently to prevent its reuse.
2. In a dispenser for liquid packages having a container provided with a dispensing opening, means in said container for fracturing said package to open the same, means for squeezing and collapsing the walls of said package as it is being

withdrawn from said container comprising a fixed member and a member movable relative thereto between which said package is withdrawn, means for moving said movable member toward said
 5 fixed member to exert a squeezing force on said package, and means to cut said package as it is being withdrawn between said members.

3. In a dispenser for liquid packages having a container provided with a dispensing opening,
 10 means in said container for fracturing said package to open the same, and means for squeezing and collapsing the walls of said package as it is being withdrawn from said container, comprising a frame hinged to the top of said container, a bar rigidly secured thereto, a second
 15 bar movably mounted on such frame, a plunger for operating said movable bar connected thereto and extending beyond the confines of said container.

20 4. In a dispenser for liquid packages having a container provided with a dispensing opening, means in said container for fracturing said package to open the same, means for squeezing and collapsing the walls of said package as it is being withdrawn from said container, comprising
 25 a frame hinged to the top of said container, a bar rigidly secured thereto, a second bar movably mounted on said frame, a plunger for operating said movable bar connected thereto and extending beyond the confines of said container, and
 30 a handle secured to said container and so located with respect to said plunger as to enable a user of the dispenser to hold the same and to operate

said plunger with one hand while drawing said package between the squeezing means with the other hand.

5. In a dispenser for liquid packages having a container provided with a dispensing opening,
 5 means in said container for fracturing said package to open the same, means for squeezing and collapsing the walls of said package as it is being withdrawn from said container, comprising a
 10 frame hinged to the top of said container, a bar rigidly secured thereto, a second bar movably mounted on such frame, and means to cut said package as it is being withdrawn between said members.

6. In a dispenser for liquid packages having a container provided with a dispensing opening,
 15 means in said container for fracturing said package to open the same, means for squeezing and collapsing the walls of said package as it is being withdrawn from said container comprising
 20 a frame hinged to the top of said container, a bar rigidly secured thereto, a second bar movably mounted on such frame, a plunger for operating said movable bar connected thereto and extending beyond the confines of said container, a handle
 25 secured to said container and so located with respect to said plunger as to enable a user of the dispenser to hold the same and to operate said plunger with one hand while drawing said
 30 package between the squeezing means with the other hand, and means to cut said package as it is being withdrawn between said members.

HARRY F. WATERS.