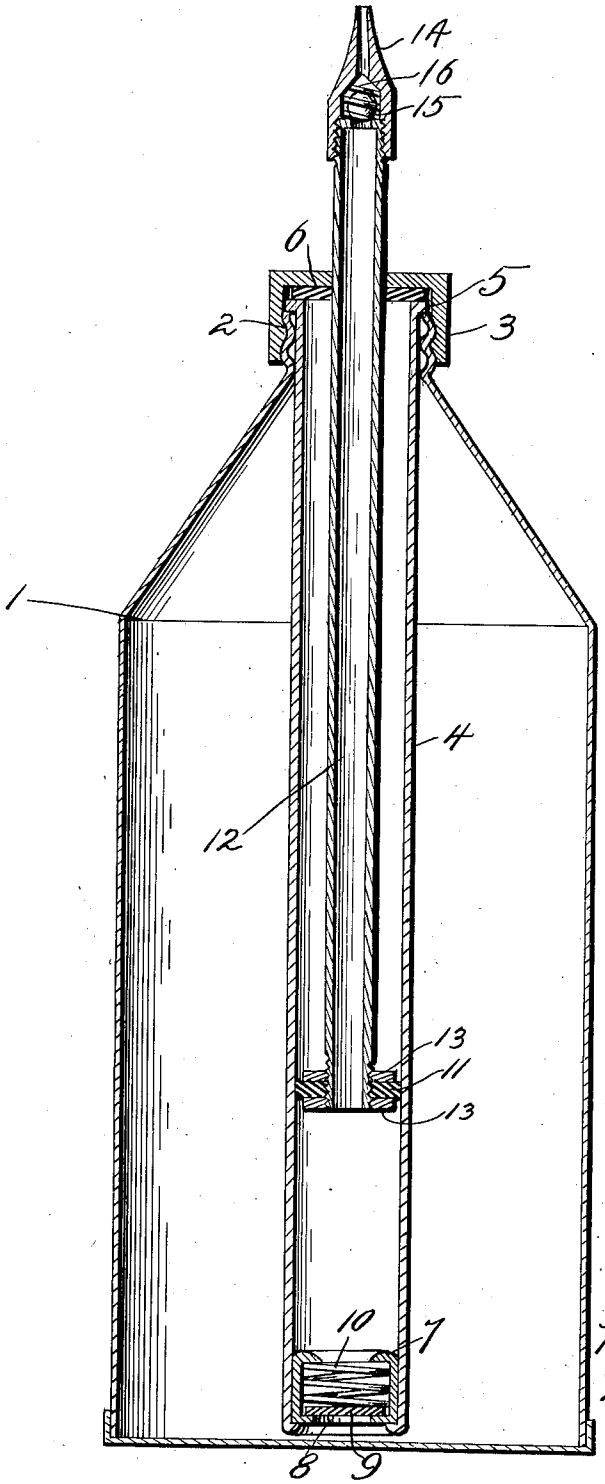
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1,697,206

H. T. ROBERTS

DISPENSING CONTAINER

Filed April 20, 1923



Inventor:
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UNITED STATES PATENT OFFICE.

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DISPENSING CONTAINER.

Application filed April 20, 1923. Serial No. 633,357.

My invention relates to dispensing cans and has for its prime purpose the provision of a construction that may be composed in part of cans forming original packages for liquid such as lubricating oil. By means of my invention such a can may readily be converted into an instrument for supplying lubricant to bearings.

I will explain my invention more fully by reference to the accompanying drawing which is a longitudinal sectional view of a liquid dispensing device made in accordance with the preferred embodiment of my invention.

I have illustrated a can 1 for holding any suitable fluid such as lubricating oil, the can illustrated being of the type in which fluids are originally packaged. The can is formed with an exteriorly threaded neck 2 upon which a closure cap is placed for closing the can, this closure cap being replaced, in accordance with my invention, by an interiorly threaded apertured cap 3. A cylinder 4 is disposed within the can, this cylinder being open at both ends and formed with a flange 5 at its outer end that overlies the outer end of the neck 2. A sealing gasket 6 is seated upon the flange. When the cap 3 is screwed home upon the neck it clamps the gasket upon the flange and the flange against the neck.

A valve cage 7 is assembled with and within the inner end of the cylinder 4, this valve cage having an opening 8 in its bottom through which communication may be established between the interiors of the can 1 and cylinder 4. A check valve 9 is downwardly pressed by a valve closing spring 10 this spring permitting the valve to open when fluid is being drawn into the cylinder 4, as will appear, and preventing the return passage of this fluid. A piston 11 is disposed within the cylinder and has fluid tight engagement therewith. This piston is carried upon the inner end of a hollow piston rod 12, open at both ends, the inner end of this rod being desirably exteriorly threaded to permit clamping washers 13 to be screwed thereon. these clamping washers clamping the piston 11 therebetween. The outer or discharge end of the piston rod desirably carries a separately formed nozzle which is screwed upon the rod. This nozzle is enlarged to form a chamber that contains a ball check valve 15 and a valve closing spring 16, this spring permitting the ball to become unseated when fluid is forced outwardly through the piston rod, and serving to seat the valve when the outward flow of liquid through the piston rod ceases. The piston rod passes snugly through openings that are formed in the cap 3 and gasket 6.

The device is operated by grasping the nozzle end of the piston rod 12 in one hand and the can in the other whereafter relative reciprocatory movement of the piston rod and can is effected. When the piston rod is drawn forwardly fluid from the can enters the cylinder by way of the opening 8 and when the movement of the piston rod is reversed the valve 9 seals the opening 8, the fluid trapped beneath this valve and the piston 11 being forced through the bore of the piston rod and thence through the nozzle 14.

While I have herein shown and particularly described the preferred embodiment of my invention I do not wish to be limited to the precise details of construction shown as changes may readily be made without departing from the spirit of my invention, but having thus described my invention I claim as new and desire to secure by Letters Patent the following:—

A lubricant dispenser comprising a container, an externally screwthreaded neck projecting therefrom, a pump cylinder removably carried within said neck and extending substantially to the bottom of said container, an annular flange projecting laterally from the upper end of the pump cylinder to overhang the threaded neck and rest upon the upper edge thereof, an interiorly threaded cap screwed upon said neck, a packing washer carried by said cap and adapted to bear against the flange of said pump cylinder to provide a liquid seal, a piston in said cylinder, a hollow piston rod connected to said piston and extending through said cap and washer, discharge means on the outer end of the piston rod. an inlet check valve at the bottom of said cylinder and an outlet check valve near said discharge means, said discharge means operating by pressure applied to lower the piston whereby liquid will be dispensed from the container.

In witness whereof, I hereunto subscribe my name this 2nd day of March A. D., 1923.

HENRY T. ROBERTS.