

R. H. BOOTH.
OIL CAN.

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933,877.

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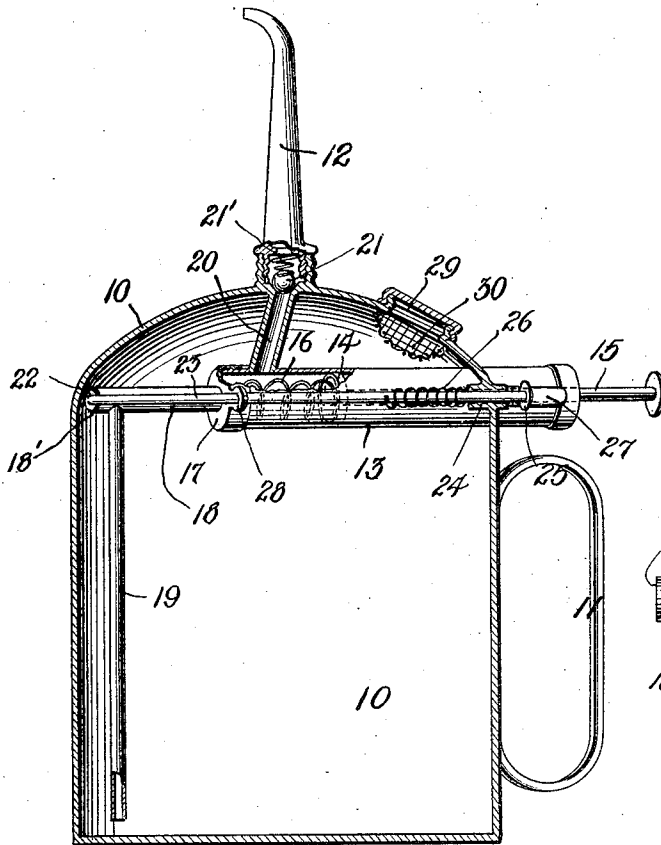


Fig. 1.

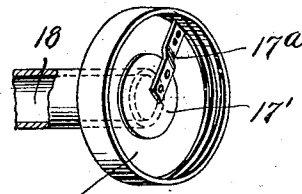


Fig. 3.

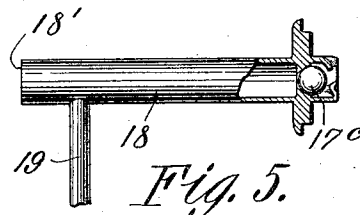


Fig. 5.

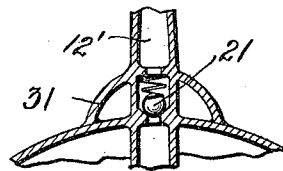


Fig. 4.

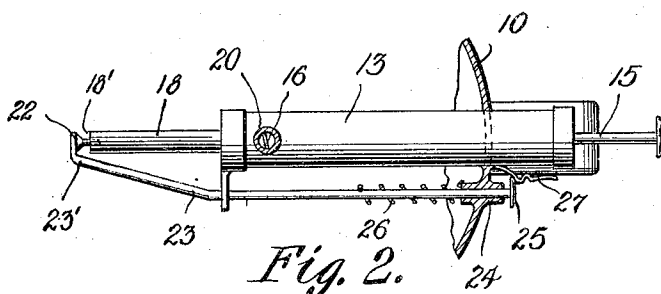


Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

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OIL-CAN.

933,877.

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To all whom it may concern:

Be it known that I, ROBERT H. BOOTH, a citizen of the United States, residing at Monmouth, in the county of Warren and State of Illinois, have invented certain new and useful Improvements in Oil-Cans, of which the following is a specification.

This invention relates to dispensing cans, and particularly to cans for dispensing lubricant or other kinds of oils.

In the operation of an oil can it is many times desirable to eject the oil while the can is in a substantially upright position, as for instance when lubricating elevated bearings, and also to permit the use of the same can when in a tilted or inverted position.

The invention comprises certain specific details of construction hereinafter fully described and claimed and illustrated in the accompanying drawings, in which—

Figure 1 is a vertical view of the device, the can being in section; Fig. 2 is a plan view of the pump and parts connected thereto; Fig. 3 is a detail perspective of the cap for the cylinder, Fig. 4 is a fragmentary detail of a modification, and Fig. 5 is a modification of the valve leading to the pump cylinder.

Throughout the following detail description and on the several figures of the drawings similar parts are referred to by like reference characters.

Referring to the drawings the numeral 10 indicates a conventional form of oil can which may be provided with a handle 11, and having a discharge spout 12 connected to the top of the can. The ejector mechanism is of the pump type and comprises a cylinder 13 in which is a piston 14 having a stem 15 projecting outwardly through the outer end of the cylinder in proximity to the operator's thumb.

The piston is normally projected outwardly by means of a coiled spring 16 at the inner end of the cylinder. The inner end of the cylinder is closed by a cap 17 carrying a valve 17', the same being normally held seated by a leaf spring 17^a secured at one end to the valve and at the other end to the cap. The valve 17' is adapted to open inwardly toward the piston to allow the oil to enter the cylinder, but on the movement of the piston toward the valve the latter will close in a manner well understood in the art. Leading toward the cylinder and

rigidly secured to the cap 17 is a pipe 18 having its open end 18' terminating close to the wall of the can at its upper end. A branch pipe 19 extends from very near the bottom of the can upward and is connected to the pipe 18 intermediate of its ends. The oil is forced from the cylinder through a pipe 20 secured to the side thereof and which pipe leads to a valve 21 connected to the neck of the spout 12 in any suitable manner. The valve 21 opens outwardly in the direction of movement of the oil and is held normally closed or seated by a spring 21'.

When it is desired to eject oil from the can when in a vertical position it is essential that the end 18' of the pipe 18 be closed in order that the suction of the pump will operate to lift the oil through the pipe 19. To this end a movable plug 22 is adapted to cooperate with said end 18', and the plug is connected to a plunger bar 23 which lies substantially parallel to the cylinder 13 and projects outwardly through a sleeve 24 to the outside of the can. The plunger bar 23 has a substantially snug fit in the sleeve 24 to avoid leakage of oil, and on its outer end is a button 25 adapted to be pressed inwardly by means of the operator's thumb against the tension of the tensile spring 26 connected at its respective ends to the bar 23 and sleeve 24 to unseat the plug 22. The bar will be held in such latter position by means of a spring detent 27 which cooperates with the button 25. The inner end 23' of the bar 23 is bent upon itself inwardly toward the cylinder and projects beyond the plug 22 sufficiently far to always lie within the end 18' of the pipe 18. With the plunger bar 23 in such position that the end 23' projects within the pipe 18 but with the plug 22 unseated the pump will operate to draw oil directly through the pipe 18 when the can is in an inverted or reclining position. When the can is inverted or tipped in position for the oil to be drawn through the mouth 18' of the pipe 18 it will of course be understood that the depth of oil in the can will not only cover said mouth but also include that end of the pipe 19 which is connected to the said pipe 18. A keeper 28 suitably connected either to the cylinder or the cap 17 guides the plunger bar 23 and maintains it in proper operative position. When it is desired to eject oil from the can while in a vertical position the detent 27 is withdrawn

from the button 25 permitting the spring 26 to seal the open end of the pipe 18. The operation of the pump, therefore, will cause the oil to flow through the pipes 19 and 18 to the cylinder.

At any suitable point the can will be provided with a filling opening 29 provided with a screen 30 to prevent the introduction into the can of dust or dirt which might interfere with the proper operation of the pump.

The spout 12 is indicated in Fig. 1 as being connected by screw threads to the can and thereby being detachable. If desired a spout 12' may be connected in a rigid manner to the can as indicated in Fig. 4 in which figure a boss 31 firmly supports the spout by being soldered or brazed thereto and to the top of the can.

In the modification of Fig. 5 instead of using the cap 17 and the flap valve 17' at the space where the pipe 18 is connected to the cylinder 13 it may be preferred to employ a ball valve, wherein the ball 17^a is movable toward the pump cylinder and housed in the adjacent end of the pipe 18 so that it will not move to a very great extent. By this means a spring for the purpose of holding the valve seated may be dispensed with.

Minor details of construction may be varied to a certain extent if desired within the spirit of the invention hereinafter claimed.

Having thus described the invention, what is claimed as new is:

1. In an oil can of the character described, the combination of a pump cylinder having a piston therein, a pipe leading to the cylinder from one portion of the can and having its end remote from the cylinder normally opened, a second pipe having an open end leading from another portion of the can to the first mentioned pipe to which it is connected, means for delivering oil from the cylinder, and means under the control of the operator for sealing the normally open end of the first mentioned pipe.

2. In a device of the character set forth, the combination of a can, a pump cylinder secured therein and projecting at one end therefrom, a pipe having an open end remote from the cylinder and leading thereto, a second pipe having an open end in another portion of the can and leading to the first mentioned pipe intermediate of its ends, means to force oil into and out of the cylinder, and means extending substantially parallel with the cylinder for closing the normally open end of the first mentioned pipe.

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

ROBERT H. BOOTH.

Witnesses:

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BERT R. PITTARD.