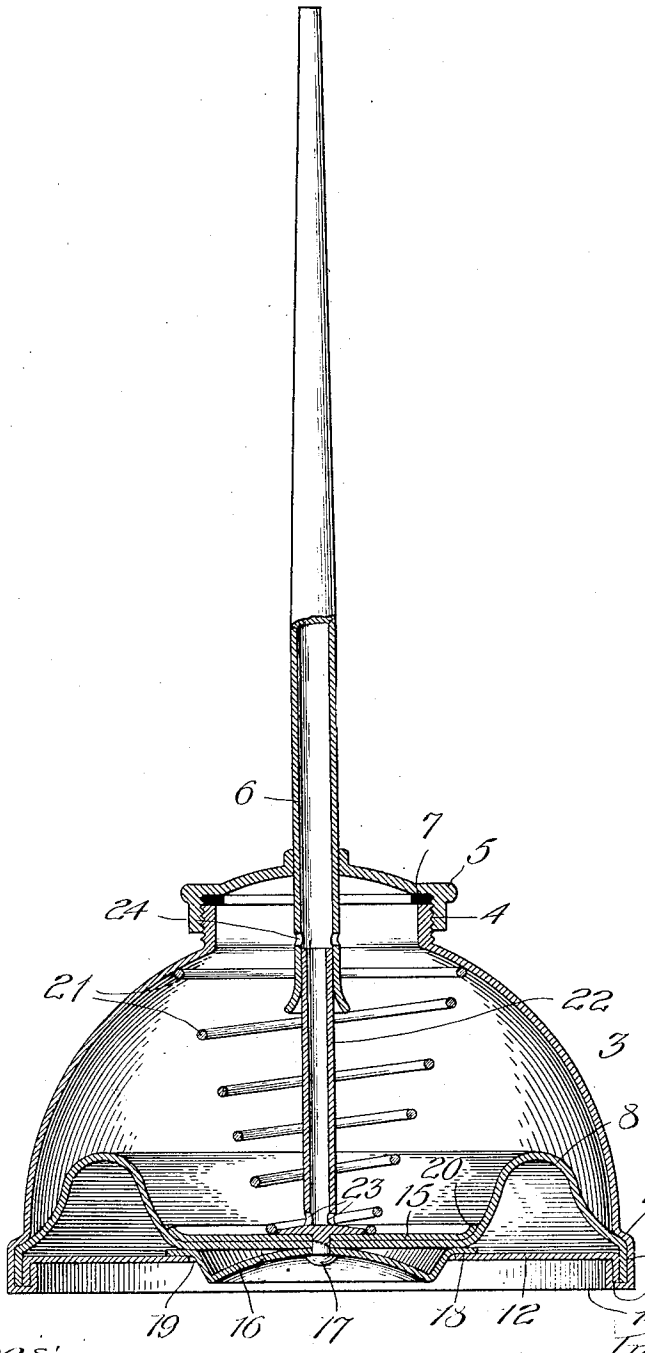
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OIL CAN.

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1,350,702. **Patented Aug. 24, 1920.**



Witnesses:
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UNITED STATES PATENT OFFICE.

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OIL-CAN.

1,350,702. Specification of Letters Patent. Patented Aug. 24, 1920.

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To all whom it may concern:

Be it known that I, EDMUND S. CHURCH, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Oil-Cans, of which the following is a full, clear, and exact description.

The invention relates to oil cans and more particularly to the type in which provision is made for cumulatively applying pressure to the oil in the can to continuously force it therefrom so that substantially the entire contents of a can may be discharged by continuous pressure.

The object of the invention is to provide an improved oil can of that type which is simple in construction and can be produced at a low cost.

The invention consists in the several novel features hereinater set forth and more particularly defined by claims at the conclusion hereof.

The single view of the drawing is a section of an oil-can embodying the invention.

The convex-concavo body 3 of the can is provided with a screw-threaded neck 4 at its upper end which is adapted for connection to a cap 5 which is rigidly secured to the discharge spout 6. A packing ring 7 is interposed between the end of the nipple 4 and the cap 5. The bottom of the oil chamber in the can is formed by a flexible and pliable diaphragm 8 of leather. The margin 9 of the diaphragm is secured in a recess or offset 10 in the lower portion of the body 3 and is clamped to form a tight joint between the body and the downturned flange 11 on a metallic bottom plate 12 by a flange 14 which is lapped around the lower edge of the diaphragm and flange 11 and around the inner side of said flange and pressed to secure the parts together. The central portion of the diaphragm is held between an upper disk or plate 15 and a thumb plate 16 which are riveted together with the diaphragm therebetween as at 17. The plate 16 is concave to conveniently receive a thumb, is disposed in a central opening 19 in the bottom plate 12 and its margin 18 is adapted to engage the inner face of plate 12 to limit the downward movement of the diaphragm. The upper plate 15 has its margin rounded or curved, as at 20, to avoid sharp bearing points against the flexible diaphragm. A coil spring 21 having convolutions of gradually increasing diameter is interposed between the plate 15 and the upper portion of the can-body to retract the diaphragm and plates 15 and 16. This diaphragm is loose or bowed upwardly between its center and its margin, so that by continuous upward pressure upon the thumb-plate nearly all of the contents of the can will be forced out through the spout.

A tube 22 extends upwardly from and is fixedly held on the plate 15 and the upper end of this tube extends into the lower end of the spout 6 which is extended into the body 3 and below the cap 5. Openings 23 in the lower end of the tube, permit oil to pass into the tube and openings 24 are formed in the spout 6 immediately above the upper end of tube 22 so that after a slight initial movement of the thumb plate 16, direct connection between the upper portion of the chamber in the body 3 and the spout will be cut off, so that there will be no connection between the air space at the top of the body and the spout. As a result, operation of the diaphragm after this initial movement will positively force oil from the body 3 into the tube 22 and through the spout 6 before all the air has been exhausted from the can and if desired, the oil can be forced upwardly.

To force oil from the can, it is only necessary to apply pressure to the thumb plate 16 and by continuing the movement of this thumb plate, a large volume of oil can be forced from the can by continuous pressure as distinguished from a back and forth movement of a spring diaphragm. The can may be conveniently filled when the spout is removed, or can be filled by forcing the diagram to its extreme inner position and submerging the end of the spout 6 in the liquid and permitting the spring 21 to operate the diaphragm to suck the oil into the can.

The invention exemplifies an oil can which can be produced at a low cost and which is adapted for forcing a large quantity of oil from the can by continuous pressure; which is simple in construction and can be produced at a low cost; and in which provision is made for forcibly discharging oil while there is an air pocket at the top of the can and so that the oil can be discharged upwardly from the spout if desired.

The invention is not to be understood as restricted to the details set forth, since

these may be modified within the scope of the appended claims, without departing from the spirit and scope of the invention.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent, is:

1. In an oil can, the combination of a can body, a discharge spout connected to the body, a thumb plate disposed in the lower portion of the body, a flexible diaphragm having its margin secured to the body and its central portion secured to said plate and bowed between the plate and the body to permit continuous movement of the thumb-plate to discharge oil from the body, and a spring for retracting the thumb plate.

2. In an oil can, the combination of a can body, a discharge spout connected to the body, a thumb plate disposed in the lower portion of the body, a flexible diaphragm having its margin secured to the body and its central portion secured to said plate and bowed between the plate and the body to permit continuous movement of the thumb-plate to discharge oil from the body, a coil spring for retracting the thumb plate, and a plate secured to the thumb-plate and inside of the diaphragm.

3. In an oil can, the combination of a can body, a discharge spout connected to the body, a thumb plate disposed in the lower portion of the body, a flexible diaphragm having its margin secured to the body and its central portion secured to said plate and bowed between the plate and the body to permit continuous movement of the thumb-plate to discharge oil from the body, a spring for retracting the thumb plate, and a bottom plate secured in the body and having an opening therein for access to the thumb plate.

4. In an oil can, the combination of a can body, a discharge spout connected to the body, a thumb plate disposed in the lower portion of the body, a flexible diaphragm having its margin secured to the body and its central portion secured to said plate and bowed between the plate and the body to permit continuous movement of the thumb plate to discharge oil from the body, a spring for retracting the thumb plate, and a bottom plate secured in the body and having an opening therein, said thumb plate having a part engaging the bottom-plate to limit the movement of the thumb-plate.

5. In an oil can, the combination of a can body, a discharge spout connected to the body, a thumb plate disposed in the lower portion of the body, a flexible diaphragm having its margin secured to the body and its central portion secured to said plate and bowed between the plate and the body to permit continuous movement of the thumb plate to discharge oil from the body, a spring for retracting the thumb plate, and a bottom plate secured in the body and having an opening therein, said thumb-plate having a part normally projecting through the opening in the bottom-plate.

6. In an oil can, the combination of a can body, a discharge spout connected to the body, a thumb plate movable in the can body, a diaphragm secured to and bowed between the plate and the body, a spring for retracting the diaphragm, and means operable with the diaphragm for cutting off communication between the upper portion of the chamber in the can and the spout and having means for delivering oil into the spout from the lower portion of the can.

7. In an oil can, the combination of a can body, a discharge spout connected to the body, a thumb plate movable in the can body, a diaphragm secured to and bowed between the plate and the body, a spring for retracting the diaphragm, said spout being extended into the can body and having an extension in the can body and an air opening in said extension, a tube secured to move with the diaphragm and said plate and extended to close the opening in the spout-extension and having an opening for receiving oil from the body for conduction by the tube to the spout when the opening in the extension is closed.

EDMUND S. CHURCH.