(No Model.)

E. R. DEVERALL.

OIL CAN.

No. 535,197. Patented Mar. 5, 1895.

Fig. 1.

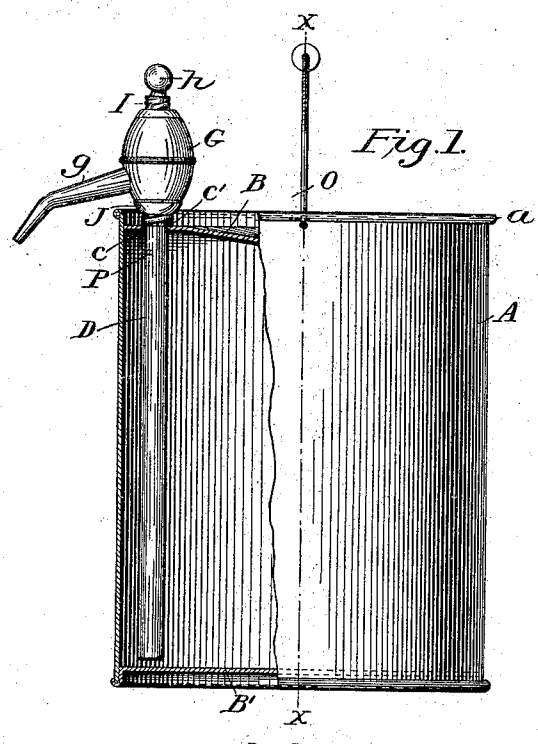


Fig. 2.

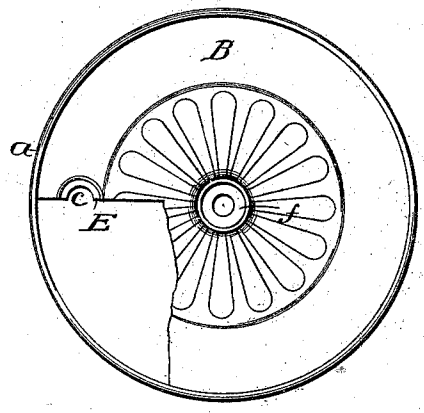


Fig. 3.

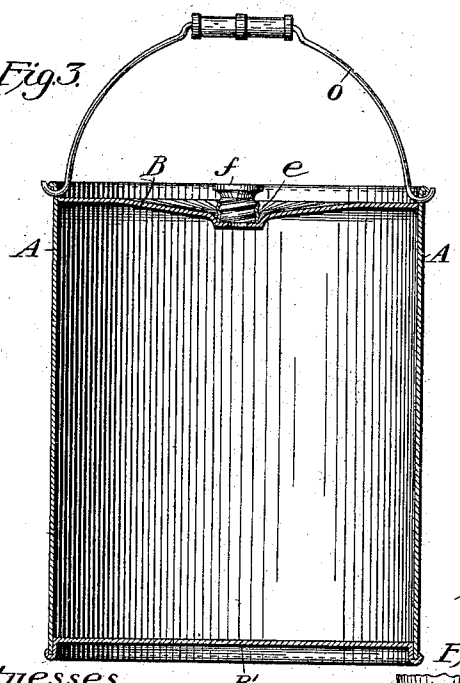


Fig. 5.

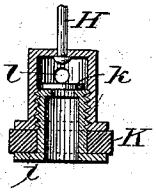


Fig. 4.

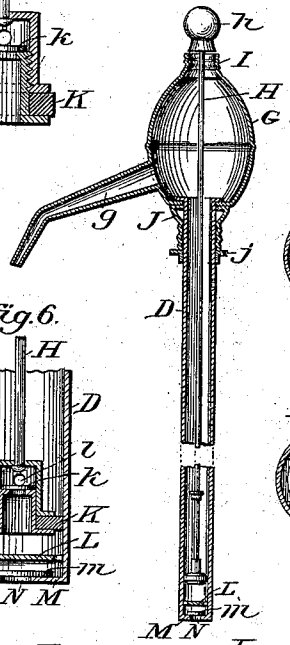


Fig. 7.

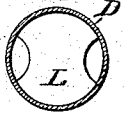


Fig. 6.

Fig. 8.

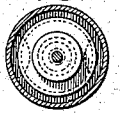


Fig. 9.

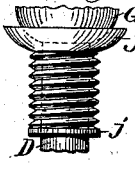
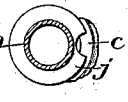


Fig. 10.



Witnesses.

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OIL-CAN.

SPECIFICATION forming part of Letters Patent No. 535,197, dated March 5, 1895.

Application filed April 15, 1893. Serial No. 470,491. (No model.)

To all whom it may concern:

Be it known that I, EDWIN R. DEVERALL, a subject of the Queen of Great Britain, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Oil-Cans, of which the following is a description, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of a can constructed in accordance with my invention. Fig. 2 is a plan view of Fig. 1. Fig. 3 is a central, vertical section, on the line *x*—*x* of Fig. 1. Fig. 4 is a view in central, longitudinal section of the pump used in connection with my improved can. Fig. 5 is a detailed, sectional view, on an enlarged scale, showing construction of pump-piston. Fig. 6 is a detailed, sectional view, on an enlarged scale, of a portion of pump-barrel, with piston inserted therein. Fig. 7 is a detailed plan view, also on enlarged scale, of partition forming upper wall of inlet-valve chamber. Fig. 8 is a plan view of Fig. 6. Fig. 9 is a detail view showing disposition of the threaded sleeve and certain adjacent parts made use of, the scale being enlarged. Fig. 10 is a detail view showing shoulder upon the pump-barrel, and manner in which said shoulder is cut away for venting purpose.

Similar letters of reference denote corresponding parts in all the views.

This invention relates to cans, and particularly to that class of cans used in packing and shipping oil and liquids of a similar character.

It consists of improved means for discharging the contents, of cans, or like receptacles, the construction of which calls for the presence, at the filling and discharge opening, of a threaded neck, having an interior seat at the base thereof, and of various details of construction, a specific description of which will be given hereinafter.

The object of this invention is to provide a can which will be simple and cheap in construction, and which may be utilized to advantage by both shippers and consumers of oil.

Having reference to the accompanying drawings, the letter A denotes the body of the can, preferably cylindrical in form and made from any suitable material, as tin or sheet-metal. The letters B, B′, denote the respective heads, which are of peculiar construction, each being drawn up from a single piece of material, in a manner to provide the same with a peripheral flange, and the edge of the flange or draw, being rolled outwardly, or, as commonly understood, "wired-over," as at *a*, the said "wired-over" feature being of importance in that it tends to increase the rigidity of the rim of the can, and to obviate indentation thereof. The general form of the heads should, of course, be such as to insure their readily fitting to the body of the can. For instance, where a cylindrical body is employed, the heads should be annular in general outline.

The head B is depressed somewhat at its center, as shown in the drawings; and is provided with a suitable opening *c*, for filling and discharge purposes, and for the purpose of permitting the barrel D, of the pump, to be let into the can, when desired. The head B is also provided, preferably at its center, with a cap-holder *e*, in the nature of an upright, screw-threaded cylinder, into which the screw-threaded cap or stopper *f* may be inserted, when not required for closing the opening *c*.

The screw-threaded neck *c′*, surrounding the opening *c*, being somewhat larger in diameter than said opening *c*, upon said neck *c′* being fixed in place, as by soldering or brazing, that portion of the head B encircled by the neck *c′*, serves as a seat within and at the base of the neck *c′*, the office of which seat will be made apparent hereinafter. A clear idea of the parts under consideration may be had by referring to Fig. 2, the said seat being denoted therein by the letter E.

The pump is provided with an annulus or sleeve J, having screw-threads adapted to take into the screw-threads of the neck *c′*. Upon the pump being removed the opening *c* may be effectually closed by simply removing the cap *f* from the cap-holder *e*, and inserting said cap in the neck *c′*,—the screw-threads of the former being also adapted to take into the screw-threads of the latter.

The pump consists of the barrel D, the bulb G, having the delivery-spout *g* and terminating in a screw-threaded neck at the top; the piston-rod H, provided with the handle

or knob *h*; and the screw-threaded cap I,—which parts are of ordinary construction: of the screw-threaded annulus or sleeve J, at the base of the bulb G; and of a peculiarly constructed piston with relative parts.

The screw-threaded sleeve J admits of rotation independently of the pump, and undue displacement thereof along the pump-barrel D, is obviated by the annular stop or shoulder *j*. The annular stop *j* is provided with a small cut-away, which is of importance in venting the can, as will hereinafter appear.

The screw-threaded cap I, above referred to, takes upon the screw-threaded neck of the bulb G, also above referred to, and is provided with a central opening through which passes the piston-rod H.

The drawn-up, screw-threaded cap *i* is screwed into the piston-body from the lower end thereof, the latter being provided with suitable internal screw-threads to admit of the cap *i* being thus introduced to place. Upon the cap *i* being screwed into the piston-body as stated, the crown or inner end thereof,—which, by the way, is provided with a suitable perforation or opening,—serves as a seat for the valve *k*, and forms with the adjoining walls of the piston-body, a chamber for said valve. The piston-body is provided with a lateral off-set or flange at its lower end, and the cap *i* is provided with a corresponding off-set or flange, at its outer end, so that, upon said cap *i* being inserted within the piston-body, as described, an annular recess is formed for the reception of suitable packing material K. This construction admits of the packing service being easily inserted and held firmly in place, and of its ready removal therefrom when desired.

The valve-chamber of the piston is provided with one or more outlet ports, as *l*.

The valve *k* is free to move bodily upward and downward in its chamber, the same being simply inclosed therein; and the same remarks apply to the valve *m*, referred to in the following paragraph.

The partition L, cut-away as shown in Fig. 7, is firmly secured in place within the pump-barrel D, near its valve-end, and serves to limit the upward play of the valve *m*.

The head M of the pump-barrel D, is soldered or otherwise secured in place, and is provided with a central inlet-perforation or orifice N.

In assembling the parts of my improved can, a body A, of tin or other suitable material, having been produced, the heads B, B′, are respectively inserted in place so that the edge of the body enters the peripheral way *a*, and solder is then introduced to the channel formed at the junction of the body A with the rolled-portion of the head-flange. The parts named having been thus assembled, it will be observed that the general flange to the can, as a finished article, is made up of two thicknesses of material, through which, at opposite points therein, are formed suitable openings into which takes the bail O, the said openings serving as ears therefor.

It is important that the openings last named be eyeleted, the eylets being soldered to place; and when this is done, the eyeleted, double-thickness of material constitutes a desirable feature in a can designed to serve the purposes herein named.

In the pump, the valve *k* having been placed in its chamber, the cap *i* is screwed in place, closing the end of the piston; and the valve *m* having been placed in its chamber, the head M is soldered in place.

The rotatable, screw-threaded sleeve J having been placed upon the pump-barrel D, at the base of the bulb G, the annular stop *j*, which is adapted to fit into the neck *c*′, may be secured in place in any well-known and convenient manner, care being exercised that the said sleeve have a little play between the stop *j* and the bulb G.

The pump-barrel D is provided with a drip-port P at a point below the shoulder *j*, just referred to.

For shipping purposes the can is used in the ordinary way, the stopper *f* being utilized for closing the opening *c* in the head B.

When it is desired to withdraw the contents, or a portion thereof, the following operation takes place: The pump-barrel D having been let into the can, through the neck *c*′, the sleeve J is rotated independently of the pump, and consequently descends within the neck *c*′, accompanied by the pump, which naturally descends by its own gravity; which operation is continued till the annular stop *j* comes in contact with the seat E, (Fig. 2,) hereinbefore referred to, when the pump ceases in its descent, and the sleeve J, descending a trifle farther, comes in contact with said stop *j*, urging it firmly to the seat E, and consequently holds the pump firmly in position. Then the user grasps the knob *h*, and raises it vertically upward, during which operation the valve *m* is lifted from its seat, the valve *k* being held more firmly to its seat, and a portion of the contents of the can finds its way through the opening N, through the cut-away of the partition L, and fills the space below the pump-piston. Now, upon the knob *h* being thrust downward, the action of the valves is reversed; and a repetition of the first operation causes a portion of the contents of the can to flow from the delivery-spout *g*, as will be clearly and readily understood. The pump having been placed in position for service, as described, the sleeve J will have receded somewhat from the bulb G, leaving an opening for the admission of air, which finds its way to the interior of the can through the cut-away hereinbefore referred to, of the shoulder *j*, the said cut-away, when the shoulder *j* is in place upon the pump-barrel, extending nearly to the pump-barrel, and the seat E being insufficient in width to close it. This method of venting the can is important, as it insures free venting at all times.

It is my intention to have dealers supplied with the pumps, who will loan or sell them to their patrons; and it is believed that consumers will readily appreciate the value of this device for withdrawing the contents of cans when constructed in accordance with my invention.

I claim as my improvements—

1. In combination with a liquid-receptacle provided with a threaded neck having an interior seat at its base, a barrel, as D, having bulb, as G, and a cut-away shoulder adapted to rest upon said seat, and a sleeve, disposed upon said barrel, between said bulb and said shoulder, the said sleeve being larger in diameter than said barrel, threaded to enter said neck, and having suitable longitudinal play along said barrel, all substantially as described and for the purposes set forth.

2. In combination with a liquid-receptacle provided with a threaded neck having an interior seat at its base, a barrel, as D, provided with a threaded sleeve, with a cut-away shoulder adapted to rest upon said seat, and with a valve-chamber at the lower end thereof, a valve within said chamber, and a rod carrying a suitable piston, within said barrel, all substantially as described and for the purposes set forth.

3. In combination with a liquid-receptacle provided with a threaded neck having an interior seat at its base, a barrel, as D, provided with a cut-away shoulder adapted to rest upon said seat, and a sleeve disposed upon said barrel, the said sleeve being larger in diameter than said barrel, and threaded to enter said neck, all substantially as described and for the purposes set forth.

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