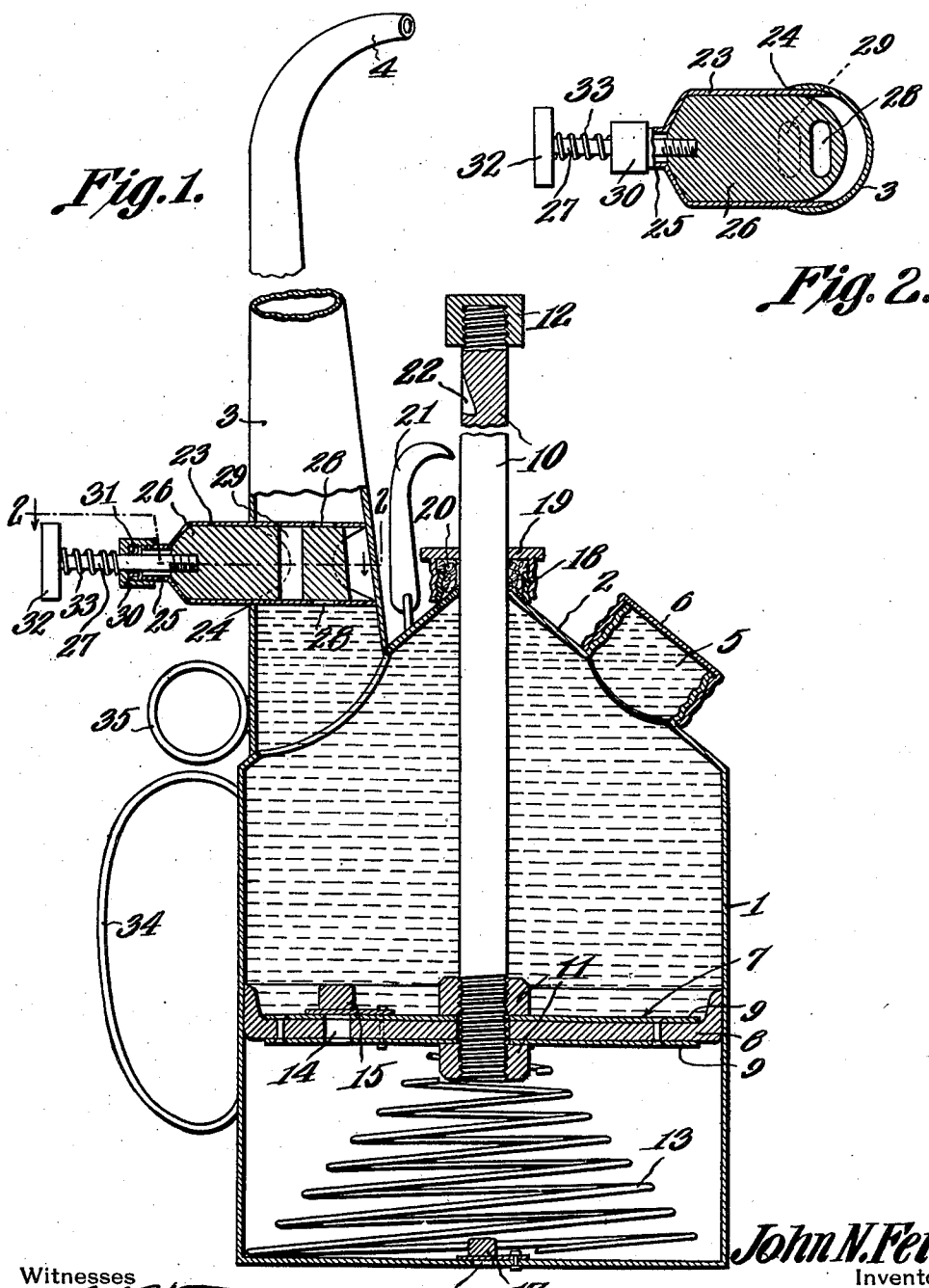
J. N. FEIT.

OIL CAN.

APPLICATION FILED APR. 6, 1914.

1,122,710. Patented Dec. 29, 1914.



Witnesses

J. R. Gomes

S. Willson

John N. Feit,
Inventor

by C. A. Snow & Co.
Attorneys

UNITED STATES PATENT OFFICE.

JOHN N. FEIT, OF BEATRICE, NEBRASKA.

OIL-CAN.

1,122,710. Specification of Letters Patent. Patented Dec. 29, 1914.

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To all whom it may concern:

Be it known that I, JOHN N. FEIT, a citizen of the United States, residing at Beatrice, in the county of Gage and State of Nebraska, have invented a new and useful Oil-Can, of which the following is a specification.

The present invention appertains to oil cans and aims to provide a novel and improved device of that character.

It is the object of the present invention to provide an oil can of unique construction and embodying a spring pressed piston within its body tending to eject the oil or contents through the spout, in connection with a manually operable valve for normally closing the passage through the spout, whereby by simply manipulating the valve, the oil may be discharged as desired.

The present invention also contemplates the provision of an oil can of the character specified wherein means are provided for enabling the can to be readily filled.

A still further object of the present invention is to provide an oil can embodying such a unique assemblage of component parts, that the can may be readily manipulated by the hand, and whereby the utility of the oil can in general, will be enhanced.

The present invention comprehends the provision of an oil can of the nature indicated, which will be comparatively simple and inexpensive in construction, as well as being simple, convenient, practical, serviceable and efficient in its use.

With the foregoing and other objects in view which will appear as the description proceeds the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention has been illustrated in its preferred embodiment in the accompanying drawing, wherein:—

Figure 1 is a longitudinal section of the improved oil can, portions being broken away, and portions being shown in full. Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1, illustrating the valve structure.

The oil can embodies a body 1, which is preferably cylindrical, and which is preferably, although not necessarily, provided with a conical top or upper end 2. The oil can is further provided with an upstanding spout 3 attached to the top 2 adjacent one side of the body 1, the free or upper end 4 of the spout 3 being curved toward the axis of the body 1 or over the central portion of the body. The top 2 of the body 1 is provided with a filling opening 5 opposite the spout 3, the opening 5 being normally closed by a screw cap or other suitable closure 6.

Within the body 1, is disposed a piston 7, which is preferably composed of a disk 8 of leather, rubber, felt or other equivalent material having its marginal or peripheral portion upturned and snugly engaging the walls of the body 1, and sheet metal disks or plates 9 riveted or otherwise secured together over the opposite faces or sides of the packing disk 8 to stiffen the same.

In order to permit the piston 7 to be depressed, when it is desired to fill the oil can, a plunger or piston rod 10 is slidable through the apex of the top or upper end 2 of the body, and has its lower or inner end engaged through the central portion of the piston 7, clamping or retaining nuts 11 being threaded upon the lower end portion of the plunger or piston rod 10 and bearing against the opposite faces of the piston to securely attach the piston and the plunger or piston rod together. A cap 12 is preferably threaded or otherwise secured upon the upper or outer end of the plunger 10, which will serve as a thumb or finger piece for conveniently depressing the plunger, it being evident that when the plunger is forced downwardly, the piston 7 will be moved toward the bottom or lower end of the can body 1.

In order to yieldably raise or elevate the piston 7, the spiral spring 13 has its lower convolution seated upon the bottom or lower end of the body 1 snugly within the walls of the body, and has its upper convolution seated against the bottom of the piston 7 around the lower clamping nut 11. The spring 13 has an expansive tension tending to raise or elevate the piston 7.

The piston 7 is provided with a port or opening 14 therethrough, and a flap or check valve 15 is mounted upon the piston 7 to seat thereon over the port or opening 14 to prevent the escape of the oil through the

said port into the space below the piston, although when the piston is depressed, the valve 15 will open to enable the air to pass through the port 14. The flap or check valve 15 thus enables the piston to be depressed but prevents the accidental flow of oil or lubricant through the opening 14 of the piston under ordinary conditions.

In order to permit air to be drawn into the lower portion of the body 1 as the piston 7 is raised, the bottom or lower end of the body 1 is provided with an opening or port 16, a flap or check valve 17 being secured upon the bottom of the body 1 to close the port or opening 16 when the piston 7 is being depressed, so as to prevent the escape of air, and to constrain the air to be forced through the port or opening 14 of the piston.

A ring or annular member 18 is secured upon the top 2 and forms a stuffing box, a gland 19 being threaded upon the stuffing box member 18 to compress the packing 20 therein tightly around the plunger or piston rod 10 to prevent leakage.

In order to lock the plunger or piston rod 10 in depressed position, when the can is to be filled, a hook 21 is pivoted to the top 2 of the body adjacent the spout 3 and its bill is engageable with a notch 22 formed within the plunger or piston rod 10, when the plunger or piston rod 10 is depressed to the desired extent.

The valve structure embodies a casing 23 inserted through a lateral opening 24 provided within the spout 3 adjacent its lower or basal end, the inner end of the casing 23 being cut or formed to fit the interior of the spout 3, so as to close the passage between the casing 23, and the walls of the spout. The outer or free end of the casing 23 is contracted, as at 25 and a valve or shutter 26 is slidable within the casing 23, and has a stem 27 threadedly or otherwise engaged in its outer end and slidable through the contracted end portion 25 of the valve casing 23. The valve casing 23 is provided with upper and lower alining ports or openings 28, while the valve 26 is provided with a port or passage 29 adapted to be moved into and out of registration with the ports 28. The ports 28 and 29 are so arranged that the port 29 registers with the port 28, when the slide 26 is moved inwardly and in order that when the slide is in its normal position as seen in Fig. 1, the ports 28 will be closed by the inner end portion of the valve.

A gland 30 is preferably threaded over the reduced end portion 25 of the valve casing, to compress the packing 31 around the valve stem 27 to prevent leakage. The valve stem 27 is provided at its outer or free end with a thumb piece 32 and a coiled wire compression 33 is seated between the thumb piece 32 and the gland 30, for normally sliding the valve 26 to its initial or closed position.

A handle 34 is secured to that side of the body 1 adjacent the spout 3, and an index finger ring 35 is secured to the basal portion of the spout 3 adjacent the upper end of the handle 34 and adjacent the valve casing 23, whereby when the index finger is passed through the ring 35 and the other three fingers are applied to the handle 34, the thumb may be readily applied to the thumb piece 32 for opening the valve 26 by an inward pressure of the thumb.

In use, to fill the body 1 of the oil can, the plunger 10 is first depressed, to depress the piston 7 within the body, and after the plunger has been properly depressed, the hook or catch 21 is engaged to the notch 22 of the plunger, to maintain the plunger in depressed condition, against the tension of the spring 13. Then, by removing the cap or closure 6, the oil or lubricant may be readily poured into the body 1 through the opening 5, the flap or check valve of the piston being closed after the piston has been depressed. Then, after the cap 6 has been applied to close the opening 5 of the body, the hook 21 may be released, to bring the spring 13 into play, for giving an upward tension to the piston 7 so as to bring the oil or lubricant within the upper portion of the body 1 under compression.

In manipulating the oil can, the index finger is applied to the ring 35 while the other fingers are applied to the handle 34, in order that the thumb may be conveniently applied to the thumb piece 32 for pressing the valve 26 inwardly to open position against the tension of the valve closing spring 33. As soon as the valve 26 is moved inwardly to bring the port 29 thereof into register with the ports 28, the oil will be forced through the ports 28 and 29 so as to be discharged from the spout 3 under the pressure created by the spring 13. The spring 13 thus serves to feed the piston 7 upwardly for discharging the oil or contents of the can, whenever the controlling valve 26 is opened.

It is to be noted that the handle 34 and index finger ring 35 are disposed at that side of the body 1, adjacent which the spout 3 is arranged, the valve 26 for the spout being disposed adjacent the handle 34 and ring 35, while the free end of the spout is bent toward the opposite side of the body 1, in order that when the oil can is tilted to bring the ring 35 and handle 34 uppermost, the free end 4 of the spout will be turned downward. It will thus be evident that the present oil can may be manipulated in a convenient and desirable manner for discharging the oil to the points desired.

The amount of oil discharged depends upon the length of time that the valve 26 is

held open by the thumb, as will be obvious, the flow of oil being quickly shut off by releasing the valve 26. The body 1 may be readily refilled from time to time, in the manner above intimated, the plunger 10 being readily depressed by hand.

It is to be noted that the check valve 15 of the piston, enables the piston to be readily depressed whenever desired, such as when the can is to be filled, or when it is desired to admit air into the oil chamber above the piston. Furthermore, the check valves of the can body and piston are useful, in that they enable the can to be readily filled without the necessity of removing the cap 6. Thus, by submerging the lower end of the can body 1 in the oil which is to be supplied into the can, and by first depressing the piston, and then raising the same, the oil will be drawn into the lower chamber of the can body below the piston through the aperture or port 16, and finally by again depressing the piston, the oil within the lower portion of the can body will be forced upwardly through the port or aperture 14 of the piston. Thus, when the piston is depressed, the check valve 17 of the can body will be closed, while the check valve 15 of the piston will be opened, and when the piston is raised, the check valve 17 will be opened while the check valve 15 will be closed. It is thus an easy matter to fill the can by simply dipping the bottom thereof in the oil, and reciprocating the piston rod or stem.

From the foregoing, taken in connection with the drawing, the advantages and capabilities of the present device will be obvious to those versed in the art without further comment being necessary, it being noted that the objects aimed at have been carried out satisfactorily by the provision of the peculiar structure herein disclosed, although it is to be understood that changes in the sizes, portions and materials may be made within the scope of the appended claims without departing from the spirit of the invention.

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

1. An oil can embodying a body having a spout, a spring pressed piston within the body, the piston having a port, a check valve carried by the piston for closing the said port when the piston approaches the spout, that portion of the body remote from the spout having a port, a check valve for closing the port of the body when the piston approaches the same, and a manually operable valve for the spout.

2. An oil can comprising a body having an upper spout, an upper filling opening and a bottom port, a spring raised piston within the body having a piston rod slidable through the upper end of the body, a closure for the filling opening, a check valve for the bottom port of the body, the piston having a port, a check valve carried by the piston for closing the port therein when the piston is raised, a manually operable valve for the spout, and means for locking the piston rod in depressed position.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN N. FEIT.

Witnesses:
MICHAEL N. HENTGES,
H. E. SACKETT.