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LUBRICATING OIL CAN
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Inventor

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This invention relates to oil cans for oiling bearings and the like and the general object of the invention is to provide an oil can having a can proper and a nozzle and provide means whereby air pressure may be used to force the oil out of the nozzle when desired.

Another object is to provide a can of this character so constructed that the tube connecting the oil can with the nozzle constitutes a handle whereby the oil can may be held, passage through the nozzle being controlled by a valve whose handle is disposed adjacent said pipe so that the handle may be conveniently operated while the nozzle is being directed to any particular point.

Other objects have to do with the details of construction and arrangement of parts to appear more fully hereinafter.

My invention is illustrated in the accompanying drawings wherein:

Figure 1 is an elevation of my improved oil can partly broken away so as to show the interior construction;

Fig. 2 is an elevation with the can proper and pump in section;

Fig. 3 is a section on the line 3—3 of Fig. 1;

Fig. 4 is an elevation of the lower end of the pump showing the manner of holding the valve thereon.

Referring to these drawings 10 designates the can itself. This can is provided with the screw-threaded neck 11 through which is inserted the barrel 12 of an air pump, this pump having the screw-threaded flange 13 engaging the screw-threaded neck 11.

Extending upward from the can and opening thereinto is a pipe 14 which terminates in a curved T 15. Connected to this T and preferably integral therewith is the nozzle 16. The lower end of the T is screw-threaded and engaging these screw-thrads is the screw-threaded flange of a cap 17.

The upper end of the T is formed with a valve seat 18 and operating within the T is a valve stem 19 carrying the valve 20. A coiled compression spring 21 surrounds the valve stem, bears against the valve at one end and against the cap 17 at its other end. The valve stem 19 extends out through the cap 17 and is provided with the head 22. The lower end of the T 15 is provided with an outstanding ear 23 and pivoted to this ear is the valve operating lever or handle 24 which is formed of stamped sheet metal.

The sheet metal is bent upon itself longitudinally and at its pivotal end the two thicknesses of metal are brought close together to provide the opposed ears 25 which embrace the ear 23 and are pivoted thereto by a cotter pin 26. The lever or handle is cut away at 27 and the stem 19 extends down between the two thicknesses of metal and the head 22 is disposed within this cut away portion 27. It will be obvious that as the handle is drawn toward the tubular portion 14 the valve will be opened and when this handle or lever 24 is released, the valve will be closed.

For the purpose of forcing air into the upper portion of the can 10 I provide the air pump barrel 12 which, as before stated, extends downward in the can nearly to the bottom thereof. This pump barrel has operating within it the piston 28 having a piston rod 29 which extends out through the top or cap 30 of the barrel. This piston may be of any suitable character. The lower end of the barrel is formed with a perforation or aperture 31 and disposed over this aperture is a leather washer 32 constituting a valve. This washer is supported in a cruciform holder 33 having four upwardly extending lugs. Two of these lugs 34 are relatively long and are soldered or otherwise attached to the exterior of the barrel 12. The other two lugs 35 are short and are bent over upon the face of the washer. This permits the leather washer 32 to be readily replaced if it should become worn by simple bending up these prongs 36 and replacing the washer. Upon a down stroke of the piston, the washer will be forced away from the aperture 31 so as to permit the passage of air into the interior of the can.

The operation of the mechanism will be obvious. The pump is operated to compress air within the can above the oil. Then when it is desired to use the can, the valve 20 is opened by simply depressing the handle 24. As soon as this handle is released, the flow of oil will be stopped. The pipe 14 constitutes a handle for holding, carrying, and manipulating the oil can and the handle 24 may be operated by the fingers or thumb of the same hand. Thus only one hand need be used when oiling bearings. Obviously the can may be made of any desired size and for use with any kind of oil. The mechanism is extremely simple and the device may be cheaply produced.
The parts and features of the invention are so arranged and assembled that the free end portion of the operating handle is disposed approximately parallel with the handle pipe and thus the operator when grasping the nozzle handle 14 will have his fingers disposed transversely across the valve operating handle.

Actual practice has shown that with one depression of the piston the device may be used for oiling as many as two hundred bearings. Of course, the device may be used for oiling bearings, joints, drip cups, and for all other purposes for which an oil can is adapted.

It will be of course understood that the piston 28 is made like the ordinary tire pump piston so that upon an upstroke of the piston air will flow downward past the piston itself into the lower portion of the cylinder 12 and upon a downstroke of the piston the compression of the air beneath will cause the piston to fit tightly against the wall of the cylinder 12 and cause the air beneath the piston to be forced out through the opening 31.

I claim:

1. An oil can including a can proper, a nozzle pipe connected therewith and serving as a handle, a spring actuated valve within the nozzle, a handle grip pivoted to the nozzle pipe for shifting the valve from its seat against the action of a spring, and having an end portion disposed approximately parallel with the nozzle pipe, and means for pumping air into the upper end of the oil can.

2. An oil can comprising a can proper having a pipe projecting outward from the side thereof and then extending parallel to the axis of the can to form a handle therefore, said pipe terminating in a T having a curved portion, a nozzle mounted upon the T, a cap closing one end of the T, a valve stem extending through the cap, a valve in the nozzle carried by said stem, a spring urging the valve closed, a valve handle grip pivotally mounted upon the nozzle pipe and having a free end portion disposed approximately parallel with the nozzle pipe, and a pump detachably engaged with the top of the oil can.

3. An oil can comprising a can proper having means whereby air may be pumped into the can, a handle pipe extending from the side of the can, upward above the top of the can and there formed with a T, a nozzle mounted upon the T, a spring actuated valve within the T acting to prevent the flow of oil through the nozzle, an ear mounted on the pipe, and a handle grip for the valve formed of a strip of metal bent upon itself longitudinally to provide two approximately parallel portions at its upper end embracing the valve stem and operatively engaged therewith and embracing the ear and pivoted thereto and having an end portion disposed approximately parallel with the handle pipe.

4. In an oil can of the character described, a can proper having a nozzle, a manually operable valve controlling the flow through said nozzle, and means for pumping air into the can comprising a cap detachably closing the end of the can, a barrel carried by the cap and extending longitudinally through the can, the lower end of the barrel having an aperture, a cruciform strip having two relatively long legs diametrically opposed and attached to the barrel, a washer supported by the cruciform strip below the aperture in the barrel, the strip having two short legs bent over to hold the washer in place.

In testimony whereof I hereunto affix my signature.

GEORGE MERZ.