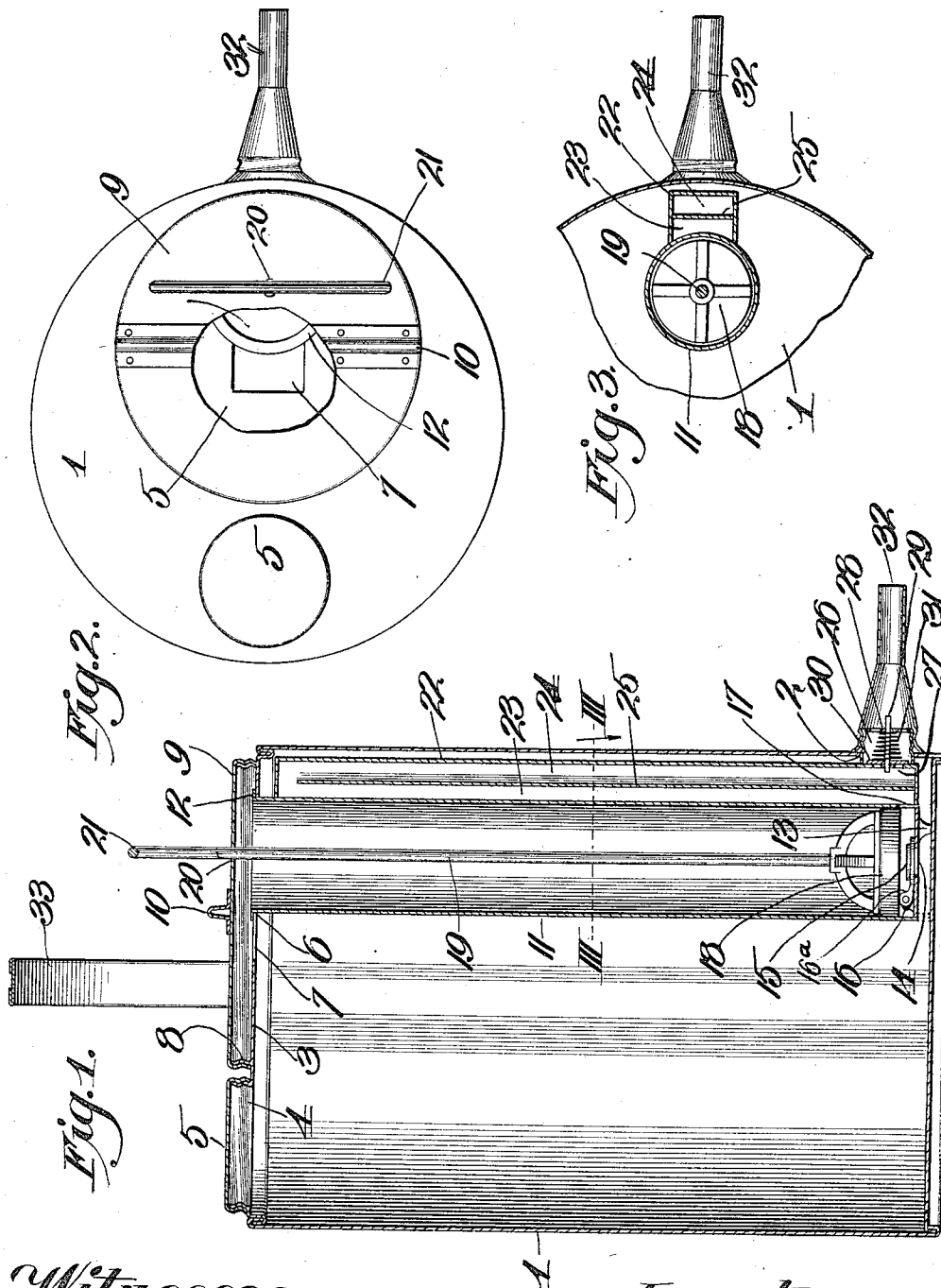


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OIL CAN.

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UNITED STATES PATENT OFFICE.

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OIL-CAN.

1,045,868.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, JAMES B. McCUNE and BURT T. CUBINE, citizens of the United States, residing, respectively, at Bowen, in the county of Johnson and State of Missouri, and Kansas City, county of Jackson, State of Missouri, have invented certain new and useful Improvements in Oil-Cans, of which the following is a specification.

10 This invention relates to oil cans and more especially to a can for use in supplying lubricant to the journal boxes of mining cars, and my object is to produce a can to contain a suitable quantity of oil and provided
15 with a pump for effecting the discharge of the oil.

A further object is to produce a can having a detachable spout for holding an oil pumping appliance reliably within the can.

20 A still further object is to produce an oil can of the character outlined of simple, strong, durable and inexpensive construction.

25 With these general objects in view the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawing, in which—

30 Figure 1, is a central vertical section of an oil can embodying our invention. Fig. 2, is a top plan view of the same with the handle omitted and a part broken away to expose features otherwise hidden. Fig. 3, is a horizontal section on the line III—III of Fig. 1.

35 In the said drawing, 1 indicates a cylindrical can provided at its lower end with a side opening 2, and at its upper end with a top 3 provided with a filling opening 4, normally closed by a detachable cap 5, and an opening 6 having an offsetting opening 7, and projecting upward from the top around and eccentrically of opening 6 is a threaded
40 flange 8 engaged by a threaded cap 9 which forms a closure for opening 6 and the offset 7 and which is provided with a cross piece 10 by which it may be turned.

45 11 is a cylinder depending through the top 3 and fitting snugly in opening 6 thereof and provided at its upper end with an out-turned flange 12 resting upon said top 3 as a support for the cylinder. At its lower end it is provided with a depending lug 13, and an
50 inlet opening 14, the lug spacing the bottom

of the cylinder from the bottom of the can to afford an unobstructed passage for the oil from the can to said opening and controlling said opening is a valve 15 mounted on a pivot 16 within the cylinder. The valve has an arm 16^a, by which it is hinged for vertical movement, the underside of the arm below the hinge point being adapted to engage the bottom of the cylinder as the valve opens and arrest such opening movement, so that the valve will be free to fall back and close the opening 14, when upward movement of the piston hereinafter described, ceases, the hinged arm of the valve being so formed that the valve will be unable to swing upward so far that it will not readily gravitate back to its original position.

The cylinder is provided at its lower end with a side opening 17, through which oil is adapted to be forced or pumped by the reciprocatory plunger 18, fitting in the cylinder and provided with the customary stem 19, extending through a hole 20 in the cap 9 and terminating above the latter in a loop 21 constituting a handle by which the plunger is reciprocated. An inverted-U-shaped conduit is in the form of a portion 22, rigid with an offset from the cylinder, said portion being divided into passages 23 and 24 by a partition 25, the partition extending from the bottom of the offsetting portion to within a short distance of the top so that the oil in passing through the cylinder shall enter the lower end of passage 23 and after filling the same overflow the upper end of the partition to enter the passage 24. At the lower end of the passage 24 is a short tube 26 to project through the opening 2 of the can with sufficient closeness to prevent leakage of the heavy oil through said opening and outer end of said tube. The outward wall of the offsetting portion of the cylinder is provided with perforations or apertures 27 establishing communication between passage 24 and said threaded tube 26. The outer end of the latter is provided with a cross bar 28, and extending centrally through the cross bar and the outer wall of the offsetting portion 22 of the cylinder, is a pin 29 on which is slidably mounted a valve 30 held normally over and closing the apertures 27, by a spring 31 interposed between the valve and cross bar 28, and to hold the cylinder reliably in position, a spout 32 is secured upon the end of the threaded tube 26 projecting out-

wardly through opening 2. For convenience in carrying and handling the can it is provided with an arched handle 33.

Assuming that it is desired to discharge oil from the can, the handle of the plunger is grasped and reciprocated, the upward movement of the plunger drawing oil up into the cylinder through opening 14 and passage 23 as the valve 15 automatically opens, and the downward movement of the plunger causing said valve to be resealed under the pressure of oil in the cylinder so that oil shall be forced from the cylinder up through said passage 23 and down through said passage 24, the oil under pressure effecting the unseating of valve 30 and the consequent discharge of oil through the spout 32. The instant the operation of the plunger ceases, the valve 30 is resealed under the pressure of its spring 31 and cuts off the discharge of oil from the spout, leaving oil standing in the cylinder and the passages 23 and 24 so that upon the next downward movement of the plunger oil shall be instantly discharged from the spout.

It will also be noted, that should valve 30 fail to seat properly, no oil will escape but that in passage 24. It will be seen that the provision of the vertically partitioned offsetting portion 22, provides for a discharge of oil on the first stroke of the piston, guards against excessive loss of oil by leakage, and a convenient anchorage for the cylinder, and attachment for the spout

When it is desired to remove the cylinder from the can to give access to the valve to repair the same or for any other purpose, any oil in the can is first poured off through the opening controlled by cap 5, after the latter is removed. The cap 9 is then unscrewed from the threaded flange 8, it being only necessary to turn the cap about one-fourth revolution to disengage it and this much of a turn is permitted by the plunger which will twist or rock sufficiently for the purpose, as the plunger does not need to fit tightly in the cylinder to operate satisfactorily with heavy oil ordinarily used for lubricating journal boxes. After the cap is unscrewed the spout 32 is unscrewed until withdrawn from engagement with the threaded tube 26 and then the latter is pressed inward until withdrawn wholly through opening 2 into the can. The cylinder is then turned halfway around until its offsetting portion 22 is vertically below the offsetting opening 7 in top 5, when the cylinder can be withdrawn from the can, the cap of course being removed with the cylinder, as it is incapable of being disconnected therefrom without first detaching the stem 19 from the plunger. The reverse operations of those described is followed in replacing the cylinder and other parts in operative position.

We have found that a can of this kind is very desirable on mining cars as the same can be carried with practically no chance of loss of oil through the can being upset as frequently occurs. Ordinarily oil is carried in a bucket or can on mining cars and a pump or syringe employed in obtaining oil from the can and discharging it in the bearing boxes of the cars. This method has been found very objectionable as it is frequently necessary to oil the cars in places where the light is poor and it also frequently happens in such places, that cars are turned over and the oil spilled, which of course is objectionable not only because of the loss of oil but also because of its distribution in undesirable places.

From the above description it will be apparent that we have produced an oil can possessing the features of advantage enumerated as desirable and we wish it to be understood that while we have illustrated and described the preferred embodiment of the same, we do not wish to be restricted to the exact details of construction shown and described as obvious modifications will suggest themselves to one skilled in the art.

We claim:

1. An oil can provided with an opening, a cylinder in the can provided with an opening to receive oil from the can and a discharge opening, a piston in the cylinder to discharge oil from the said discharge opening, an inverted-U-shaped conduit communicating at one end with the discharge opening of the cylinder, a tube communicating with the opposite end of said conduit and projecting through the opening of the can, a valve controlling communication between the conduit and the tube, a spring holding the valve seated when the piston is not forcing oil into said conduit, and a spout detachably secured to said tube and bearing against the exterior of the can to hold the cylinder in fixed position.

2. An oil can provided with an opening near its lower end and with a top having a circular opening and an opening offset from and communicating with the circular opening, a cylinder extending through the circular opening and resting on the bottom of the can and provided with an opening to receive oil from the can and with a discharge opening, an inverted-U-shaped conduit secured to and externally of the cylinder and terminating short of the upper end of the same, and communicating at one end with the discharge opening of the cylinder, said conduit being capable of passing through said offsetting opening in the top of the can when the cylinder is inserted in or removed from the can, a tube communicating with the discharge end of the conduit and through the first-named opening of the can, a spring-seated valve normally closing communica-

tion between the tube and the conduit and adapted to open under sufficient pressure applied by oil in the conduit, a spout detachably secured to said tube externally of the can, and a reciprocatory piston in the cylinder.

3. In an oil can provided with a permanent top having a circular opening and an offsetting opening communicating with the circular opening, a cylinder extending into the can through the circular opening and provided externally with an inverted-U shaped conduit communicating with the lower end of the cylinder, a valve control-

ling the other or discharge end of the conduit, a piston fitting in the cylinder and provided with a stem projecting above the can, and a circular screw cap secured to the top of the cylinder and closing said opening of the tube and provided with an opening through which said valve stem extends.

In testimony whereof we affix our signatures, in the presence of two witnesses.

JAMES B. McCUNE.
BURT T. CUBINE.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."