(No Model.) 2 Sheets—Sheet 1.

J. GEARY.

LAMP FILLING OIL CAN.

No. 482,680. Patented Sept. 13, 1892.

Fig 1

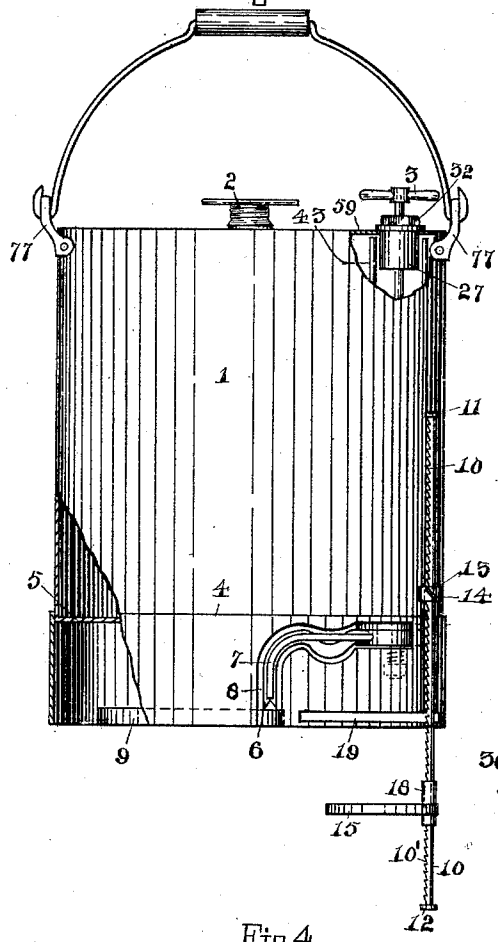


Fig 2

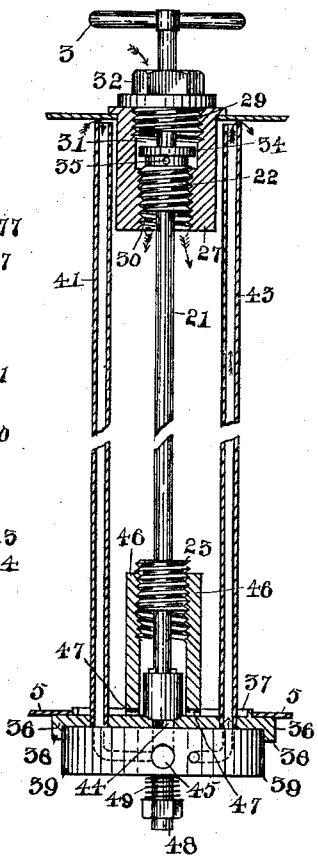


Fig 3

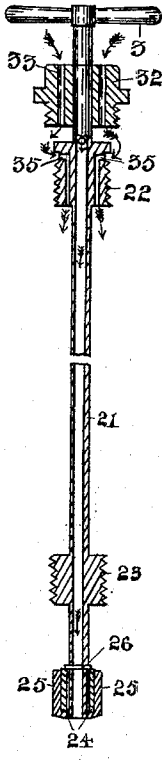


Fig 4

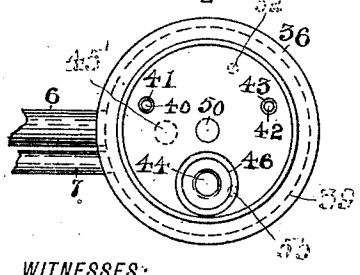
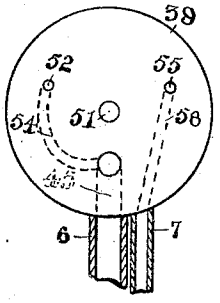


Fig 5



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(No Model.) 2 Sheets—Sheet 2.

J. GEARY.

LAMP FILLING OIL CAN.

No. 482,680. Patented Sept. 13, 1892.

Fig. 6.

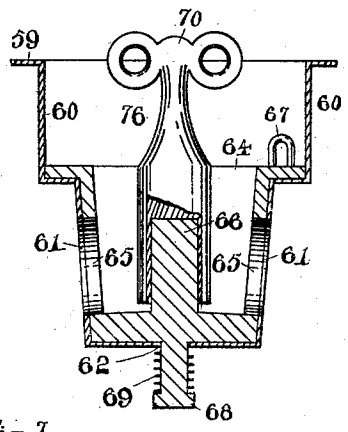


Fig. 7.

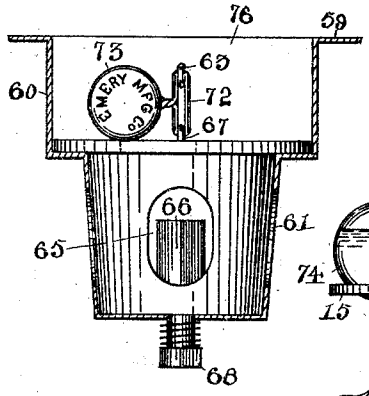


Fig. 11.

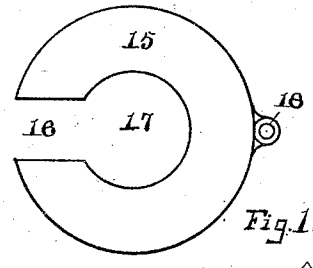


Fig. 9.

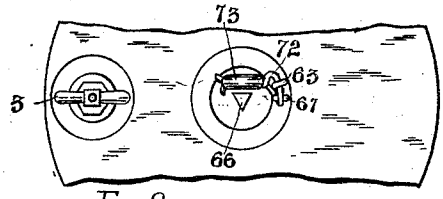


Fig. 8.

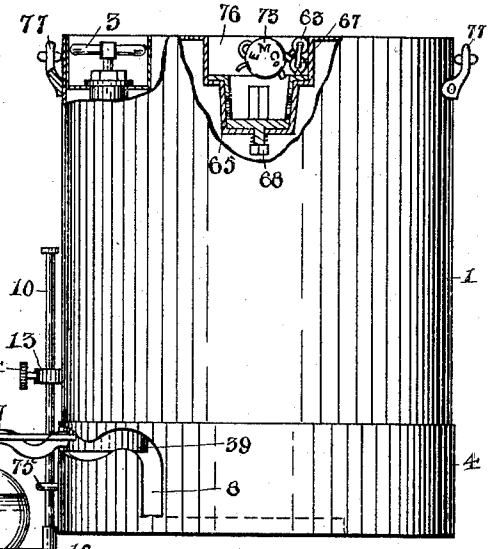


Fig. 10.

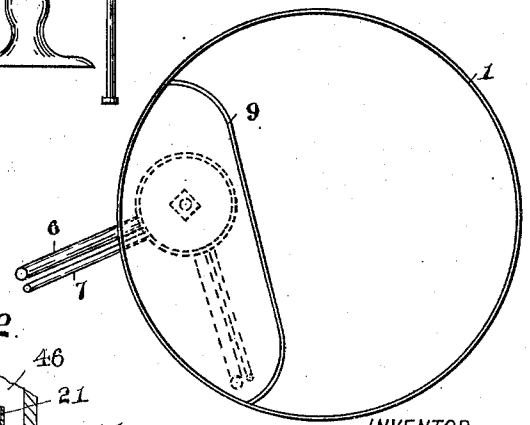
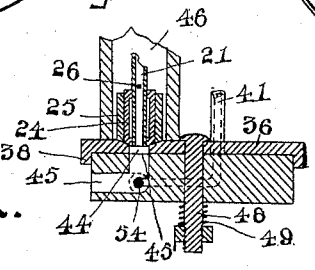


Fig. 12.



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UNITED STATES PATENT OFFICE.

JAMES GEARY, OF BRADFORD, PENNSYLVANIA, ASSIGNOR OF THREE-FOURTHS TO L. EMERY, JR., OF SAME PLACE.

LAMP-FILLING OIL-CAN.

SPECIFICATION forming part of Letters Patent No. 482,680, dated September 13, 1892.

Application filed April 26, 1892. Serial No. 430,801. (No model.)

To all whom it may concern:

Be it known that I, JAMES GEARY, a resident of Bradford, in the county of McKean and State of Pennsylvania, have invented certain new and useful Improvements in Lamp-Filling Oil-Cans; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

The invention relates to oil-cans and to devices for filling and emptying the same; and its object is to improve the efficiency and safety of such devices; and it consists in the construction hereinafter described, and particularly pointed out.

In the accompanying drawings, Figure 1 is a side elevation partly broken away. Fig. 2 is a partial longitudinal section of an attachment for controlling discharge of oil. Fig. 3 is a similar view of a modified detail. Fig. 4 is a plan of a perforated plug or disk which supports a similar plug bearing an oil-outlet and an air-inlet pipe, these being shown as broken away in part and in their closed position, the ports or orifices of the lower plug being shown in dotted lines. Fig. 5 is a plan of the perforated plug to which the oil and air pipes are connected, said pipes being in section and partially broken away, but in operative position. Fig. 6 is a vertical section of can-filling device. Fig. 7 is a view taken at right angles to the section of Fig. 6. Fig. 8 is a side elevation of the preferred form of can, parts being broken away. Fig. 9 is a partial plan of the same. Fig. 10 is a bottom plan of detachable band with drip-pan and pipes, the latter being partially broken away; and Fig. 11 is a plan of a part of the lamp-holding attachment. Fig. 12 is a partial central section taken at right angles to Fig. 2.

As shown in Fig. 1, numeral 1 represents the oil-can, 2 a filling device, and 3 a valve-stem handle for controlling discharge of oil.

4 is a band secured to the bottom 5 of the can, made of such a depth as to allow the spout 6 and air-pipe nozzle 7, which is in close proximity to said oil-spout, to swing underneath said can through the slot or orifice 8, with space enough below the ends of the spout and air-pipe to allow a drip-cup 9 to be attached. The ends of the spout and air-pipes are provided with angular points to prevent retention thereon of drops of oil. The oil-spout is provided with a bend, as shown, which is adapted to receive and trap the drip.

10 is a serrated rod having end collars 11 and 12. It is secured to the can by means of the loop or eye 13, which is provided with the thumb-screw 14, adapted to engage any one of the serrations of the rod for the purpose of holding it at any desired elevation.

15 is a holder or support for the lamp, which may be made of wire, or it may be a disk-shaped plate with an aperture 16, (see Fig. 11,) extending from the periphery to a central hole 17. The object of said aperture is to admit the stem or standard of the lamp, so that its bowl may rest in the hole 17.

18 is a sleeve attached to the support 15 and adapted to slide on the rod 10. The bottom of said sleeve engages the serrations 10′, which prevents it from slipping.

When the lamp-support 15 is not needed, it can be raised to the orifice 19 of the band and swung underneath the can. The rod can also be raised so that its foot shall align with the bottom of the band and it may be secured in that position by the thumb-screw.

On valve-stem 21 are permanently fixed a handle 3 and screw-threaded enlargements 22 and 23, and also a sleeve 24, around which is placed a covering 25, said covering being preferably of some elastic material.

23 and 25 constitute the valve, which may be held to the bottom of the stem by friction or in any suitable manner. In the present instance it is prevented from slipping upon the rod by a pin 26.

27 is a plug secured to the top of the can and provided internally with the top thread 29 and bottom thread 30, between which is the chamber 31.

32 is a flanged nut, which screws into the threaded portion 29 and through which the valve-stem 21 moves. The nut 32 is provided with air-inlet holes 33.

The threaded enlargement 22 is provided with a head 34. Just below said head is an annular space communicating with air-holes 35 to permit air to enter the can from above when the valve is screwed to its seat.

36 is a flanged disk or plug secured to the can-bottom and provided with the vertical flange 37, which is a guide for its insertion into a suitable aperture in the bottom 5.

38 is a flange within which the filling-spout disk or plug 39 is rotatably secured. It is further provided with the orifice 40, in which the air-tube 41 is secured, and orifice 42, in which the air-tube 43 is secured. (See Fig. 4.)

44 is the orifice through which the oil is discharged into the orifice 45′ of the passage 45, through which latter it is conveyed to the filling-spout 6.

46 is a tube for guiding the valve-stem 21, internally screw-threaded to receive the threaded enlargement 23. It is secured to the flanged disk 36 and is provided with the orifices 47 for the passage of oil to the orifice 44. The filling-spout disk 39 is situated within flange 38 of the disk 36, and these disks are secured to each other by means of the headed bolt 48, having on its end opposite its head a nut. Said bolt passes through the hole 50 of the flanged disk 36 and the hole 51 (see Fig. 5) of the disk 39.

49 is a spring bearing upon the nut and upon disk 39.

52 (see Fig. 5) is an orifice of the passage 54, (shown by dotted lines,) that connects the tube 41 with the discharge-outlet 45′, leading to passage 45 and spout 6.

55 is an orifice of the passage 58, (indicated by dotted lines,) that connects the air-tube 43 with the air-nozzle 7. Pipe 41 and passage 54 admit air to spout 6 to facilitate escape of drip. Pipe 43 and passage 58 admit air to the upper part of the oil-vessel to replace oil that may be drawn off. The disk 39 is pivoted upon the bolt 48, about which it turns when tubes 6 and 7 are revolved either to the interior position under the can, at which time communication is closed between the ports or passages of the two disks, or when they are moved to the exterior position to put such ports in communication.

59 is the top of the oil-can, having depression 60, provided with apertures 61 and orifice 62 and eye or staple 63. In depression 60 is seated the hollow plug 64, provided with outlet-apertures 65 for filling the can through the orifices 61.

66 is an angular key-stem, 67 an eye or staple, and 68 a bolt. Said bolt is provided with a spiral spring 69, adapted to hold the plug in its seat.

70 is a key for the plug.

The method of operating the filling-plug 64 is as follows: The key is fitted to the key-stem 66 and turned, so that the apertures 65 and 61 are made to register, forming a free passage for oil into the can. When the can is filled, the plug is revolved by the key which closes the apertures. The staples 67 and 63 are by the same operation brought in line. The wire 72 can then be inserted through said staples and the ends thereof embedded in the seal 73.

The cans are intended to be loaned by oil refiners or dealers to their customers; and the object of so constructing the filling devices is to prevent filling said cans without the knowledge of the dealer owning them.

In Fig. 8 a lamp 74 is shown suspended in the orifice 17 of the support 15, with the filling-spout 6 and air-nozzle 7 adjusted for filling the lamp with oil. The rod 10 is without serrations, the support 15, being held in place by the friction of a sleeve 18. Said rod is held by the thumb-screw 14 in the eye or loop 13 and kept from any vibratory motion by means of the eye or loop 75. The top of the can, as shown in Fig. 8, has the filling-chamber 76 and the valve-stem handle sunk below the upper surface or level of said top, and the ears 77 are also below said level, thus presenting a top surface free from projections, which is an important feature in the transportation or storage of cans.

The method of operating the can is as follows: The lower ends of the filling-spout and air-nozzle are inserted in a lamp preferably suspended in a suitable support. The valve is then raised by unscrewing the threaded enlargements 23 and 22 by means of the handle, thereby bringing the head 34 against the flanged nut 32 and closing the air-holes 33. By swinging the spout out from the can, as shown in Fig. 8, the several holes in the plugs or disks 36 and 39 are made to register, thereby allowing the oil to flow freely, air or air and vapor being admitted to the can through the nozzle 7 and pipe 43. When the oil in the lamp nears the top, it stops the mouth of the air-nozzle, preventing the passage of air to the can, thereby stopping the flow of oil to the lamp. The valve is then screwed down on its seat, which action uncovers the holes 33 in the flanged nut 27, allowing the air to pass into the can through the holes 35 of the threaded enlargement 22. Air then passes into the tube 53 and allows oil that may have been held in the filling-spout above its sealing-bend to pass out. By swinging the filling-spout back under the can the orifices in the disks 36 and 39 are closed.

In Fig. 3 the valve-stem 21 is shown hollow, closed at its upper end and laterally perforated for the passage of air, substantially as described in connection with tube 53.

I am aware that spouts have been combined with air-inlet pipes in an oil-can and that spouts have been adapted to be swung through a supporting-band and under a can, and also that valves have been seated in depressions in the tops of the cans, and such devices are not of my invention, but only the constructions hereinafter pointed out.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An oil-can provided with a supporting-band at its bottom, having a slot 8 therein, and with an oil-discharging spout jointed to

the can and adapted to be swung through said slot and a drip-pan secured to the band on each side of the slot, said spout in its closed position being entirely within the band and having both ends over the pan, all substantially as set forth, whereby the band is strengthened and drip either from the spout or from its joint with the can is received.

2. An oil-can provided with a supporting-band at its bottom, having a slot 8 therein, and with an oil-discharging spout and an air-inlet pipe in proximity thereto, the spout and pipe being connected to a disk 39, supplied with suitable ports and eccentrically pivoted to a disk 36, fixed to the can-bottom and having corresponding ports, said spout and pipe being adapted to be swung together and entirely within the band through said slot, substantially as set forth.

3. An oil-can provided with a supporting-band at its bottom, having a slot 8 therein, and with an oil-discharging spout communicating with an opening in the bottom of the can, and an air-inlet pipe in proximity thereto, both being adapted to be swung together through said slot, said air-inlet pipe communicating with a pipe extending within the can to its upper part, and a valve adapted to close both the oil and air passages, substantially as set forth.

4. An oil-can provided with a supporting-band at its bottom, having a slot 8 therein, and with an oil-discharging spout, in combination with the vertically-adjustable lamp-holding device attached to the can, substantially as set forth.

5. An oil-can provided with a supporting-band at its bottom, having a slot 19 therein, in combination with a horizontally-movable pivoted lamp-support adapted to be moved through said slot and under the can, substantially as set forth.

6. An oil-can provided with a supporting-band at its bottom, having a slot 19 therein, in combination with a horizontally-movable pivoted lamp-support adapted to be moved through said slot and under the can, said support being also vertically adjustable, substantially as set forth.

7. An oil-can provided with a supporting-band at its bottom having a slot 8 therein, in combination with a horizontally-movable lamp-support adapted to be moved through said slot and under the can, said support being attached to a rod vertically adjustable on the can, whereby its foot can be raised to a level with the bottom of the can-supporting band, substantially as set forth.

8. In an oil-can, the plug 39, rotatably supported near its bottom and provided with air-passages 58 and 54 and oil-passage 45, in combination with air-inlet pipes 43 and 41 and with an oil-outlet in the can-bottom and a valve therefor, said oil-passage and air-passage being eccentrically situated with respect to the plug, substantially as set forth, whereby the rotation of the plug opens or closes the passages.

9. In an oil-can, the combination of the correspondingly-apertured plugs 39 and 36, with the air-pipes and the oil-spout and air-inlet pipe, said oil-spout and air-inlet pipe being secured to the rotatable apertured plug 39, substantially as set forth.

10. In an oil-can, an oil-spout and an air-inlet pipe having the open ends in proximity and each provided with tapered points to prevent the retention of drops, the end of the air-pipe being above that of the spout, whereby the retention of a drop between them is avoided, substantially as set forth.

11. In an oil-can, its cover, the plug 27, the flanged nut 32, having air-inlet holes, and the valve-stem having a screw-threaded and perforated enlargement 22, all in combination, whereby air may be admitted to or excluded from the can, substantially as set forth.

12. In an oil-can, its cover, the plug 27, the flanged nut 32, having air-inlet holes, and the valve-stem having a screw-threaded and perforated enlargement 22, the bottom having an oil-discharge passage, and a pipe whereby the upper part of the can and such oil-discharge passage communicate, whereby external air may be admitted to said discharge-passage, substantially as set forth.

13. In an oil-can, the combination of an oil-discharge passage at the bottom of the can, a valve therefor, and a pipe extending from the inner end of said passage to the upper part of the can, and a discharge-spout communicating with the lower or outer end of said passage, whereby air may be admitted to the inner end of the spout to facilitate the discharge of drip, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JAMES GEARY.

Witnesses:
N. S. MINNISS,
LEWIS EMERY, Jr.