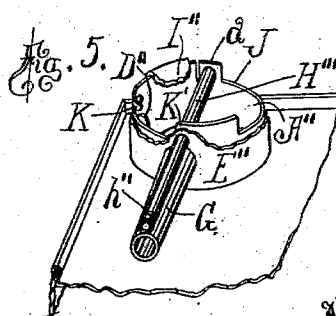
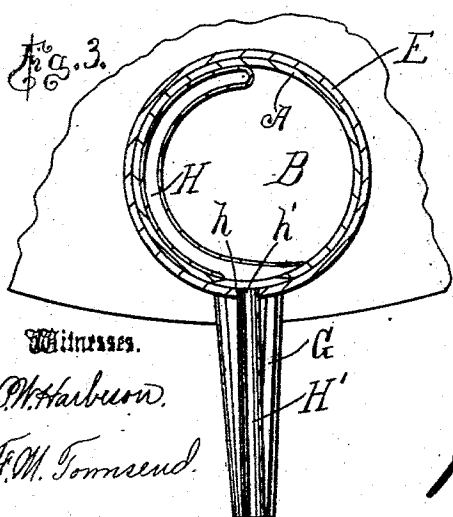
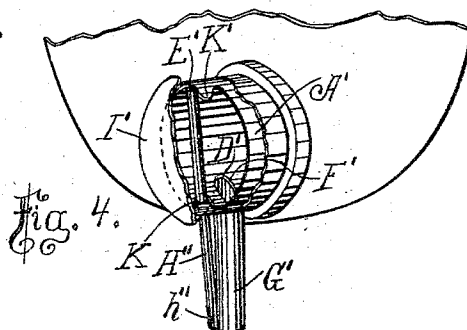
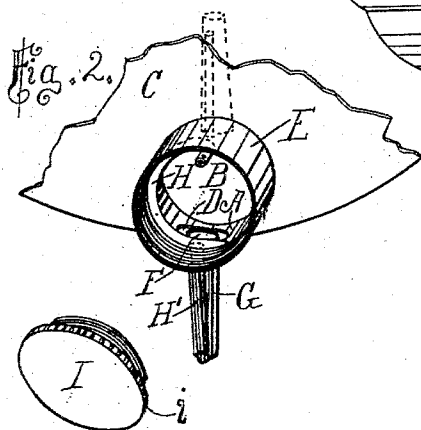
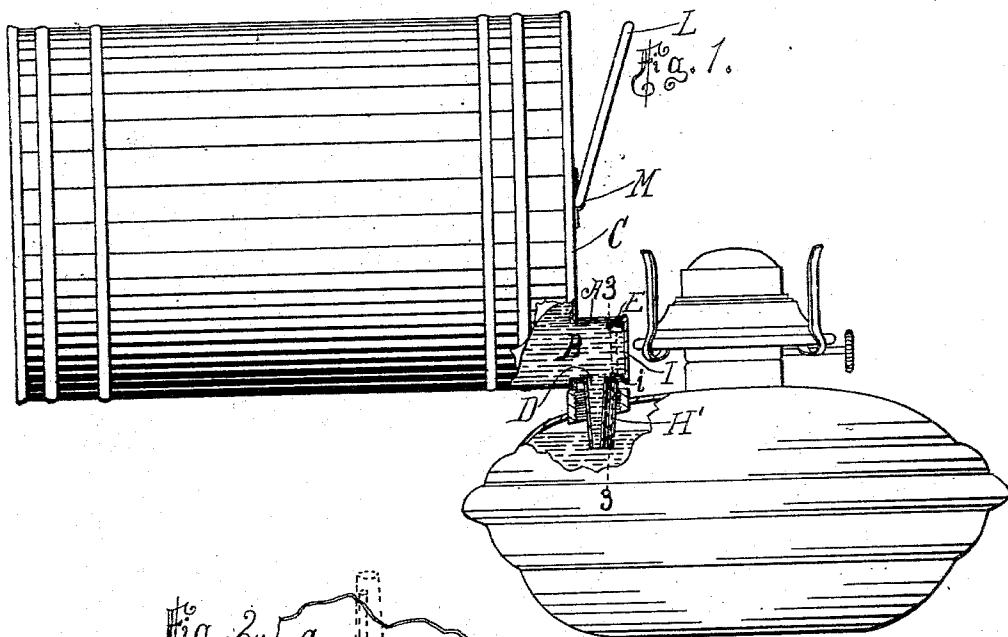


(No Model.)

I. W. LORD.
LAMP FILLER.

No. 511,054.

Patented Dec. 19, 1893.



Witnesses.
W. Harburn.
F. W. Townsend.

Inventor
Isaac W. Lord
Hazard Townsend
his atty.

UNITED STATES PATENT OFFICE.

ISAAC W. LORD, OF CUCAMONGA, CALIFORNIA.

LAMP-FILLER.

SPECIFICATION forming part of Letters Patent No. 511,054, dated December 19, 1893.

Application filed July 29, 1893. Serial No. 481,830. (No model.)

To all whom it may concern:

Be it known that I, ISAAC W. LORD, a citizen of the United States, residing at Cucamonga, in the county of San Bernardino and State of California, have invented a new and useful Lamp-Filler, of which the following is a specification.

The object of my invention is to provide a can with an improved device adapted for rapid, safe and convenient filling of lamps and in which means are provided for a tight closure of the outlet when not discharging.

A further object of my invention is to construct a lamp filling device having an automatic cut off, and which will be very compact and will therefore be applicable to cans for shipping oil in small quantities, such as five gallons, for domestic purposes.

A further object is to provide in connection with such filler a suitable vent to admit air into the can while the oil is flowing out.

My invention is also applicable to casks, large ink bottles and other vessels designed to hold and discharge liquids.

The accompanying drawings illustrate my invention.

Figure 1 is a side elevation of a can provided with my invention and in use filling a lamp. The filler is shown in section and a portion of the can and the lamp is broken away to expose the interior. Fig. 2 is a perspective view of the form shown in Fig. 1 attached to a fragment of a can and showing the cap removed from the collar of the can. Dotted lines indicate the position of the spout when the outlet is closed. Fig. 3 is a cross section of the filler on line 3—3 Fig. 1. Fig. 4 is a perspective side view of another form of my device, a portion of the filler being broken away to show the arrangement of parts. Fig. 5 is a perspective view of another form of my device illustrating improved means for closing the end of the vent tube when the movable collar is turned to cut off the flow of oil from the can. The cap of the movable collar is broken away to expose the interior.

My invention comprises the combination of a projecting fixed collar A extending outward from the margin of the outlet B of the vessel (C) and provided with the lateral discharge opening D, and a loose movable collar E fitted

to the fixed collar A and adapted to partially rotate with relation to the same and provided with the spout opening F adapted and arranged to register with the discharge opening of the fixed collar at one point in its rotation and to register with the wall of the fixed collar at another portion of its rotation so that in one position the spout opening will be closed by the wall of the fixed collar and at another position the passage through the spout opening from the interior of the fixed collar will be unobstructed.

My invention also comprises the combination with the parts above mentioned of a suitable vent tube secured to the movable collar and opening into the inside of the fixed collar and adapted and arranged to be closed by the wall of the fixed collar when the movable collar is turned into position to close the spout opening, and is also so arranged with relation to the fixed collar that when the spout opening is thrown open the passage from the vent into the fixed collar is also opened.

My invention also embraces other features hereinafter more fully specified.

In the form shown in Figs. 1, 2 and 3 the vent communicates with the interior of the fixed collar through a curved tube H applied to the inside of the fixed collar A and communicating with the vent hole *h* through the wall of such fixed collar and communicating through such hole with the outer vent tube H' which is secured to the loose collar and communicates with the vent hole *h'* therethrough. In this form of vent the vent is closed by rotating the loose collar until its walls close the hole *h* in the fixed collar, and the hole *h'* in the loose collar is closed by the wall of the fixed collar. In this form I is a screw cap to form a closure for the outer ends of the collars. The flange *i* which projects beyond the wall of the fixed collar closes the outer end of the loose collar and serves to prevent the removal of the loose collar E so long as the cap is screwed in place. To fill a can of this description, the screw cap E is removed thus giving access to the interior of the can.

In the forms shown in Figs. 4 and 5 the movable collar E' (E'') is capped over by the cap I' (I'') which is made integral with the movable collar and forms a suitable closure

for the outer ends of both collars. The vent tube H''' Fig. 5, extends across inside of the loose collar from one wall thereof almost to the outer wall thus leaving a space between the end of the tube and the inner face of the wall of the movable collar E'' equal to the thickness of the wall of the fixed collar A'' and the fixed collar A'' is provided with the vent notch J throughout a portion of its outer end opposite the discharge opening D'' so that when the loose collar is rotated to bring the spout G into position to register with the hole D'' the inner end of the vent tube H''' will be left free so that the air may pass through the vent tube; and when the collar is turned to close the hole D'', the end of the vent tube H''' will register with and press against the inside of the wall of the fixed collar A'' thus to close the vent. The fixed collar is made of spring metal and the wall at the portion with which the free end of the vent tube registers or comes into contact when the outlet is closed is formed into a spring *a* which is bent if desired to cause the spring to spring firmly against the inner end of the vent tube thus to close it effectually. Such bend is slight in practice and illustration thereof is not deemed necessary. This spring is shown specifically in Fig. 5.

In the form illustrated in Figs. 4 and 5 the inner fixed collar A' (A'') is provided with the vent tube retaining shoulders or hooks K K' beneath which the vent tube H'' (H''') fits and comes to rest when the movable collar is turned to fully close or to fully open the discharge, so that when the movable collar is turned to fully close or to fully open the discharge, the collar will be locked in place upon the fixed collar A thus preventing the removal of the collar and holding the contents of the vessel secure. The loose collar can be removed, however, from the fixed collar, by turning it until the vent tube is between the two hooks K K' thus to release such tube and allow the loose collar to be drawn off.

In order to prevent the vent tube from remaining closed by liquid in case it should become flooded by the liquid within the can, I provide an auxiliary vent or air hole h'' near the outer end of the vent tube, so that the air will be admitted to the vent tube and allow the discharge of a small amount (a drop, for example) of the liquid which may be in the tube when the can is brought upright and this, in flowing out, will cause the outflow of the remainder of the liquid which may be within the tube. The vent tube extends practically to the end of the spout G (G') so that when the lamp is filled the inflow of air will be stopped immediately the liquid rises to the outlet of the tube and spout; or, rather, immediately it rises above the air hole h' if

such air hole is present. When the flow has thus been stopped the can may be raised into an upright position before further flow will begin. When the flow is thus stopped the loose collar is turned to close the outlet and the can is ready to be stowed away. The inner end of the vent tube is at the side of the collar opposite the spout opening so that when the filler is in use to discharge the oil or other liquid the inlet for admitting the air into the can will be above the spout opening so that the air will be admitted therethrough to supply the vacuum resulting from the discharge of the oil from the can.

Now, having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the fixed collar provided with the lateral discharge opening and provided with the vent tube retaining shoulder; the loose movable collar fitted to the fixed collar and adapted to partially rotate with relation to the same and provided with the spout opening and adapted and arranged to register with the discharge opening of the fixed collar at one point of its rotation and to register with the wall of the fixed collar at another portion of its rotation; the vent tube secured to the movable collar and opening into the inside of the fixed collar and adapted to fit beneath the vent-tube retaining shoulder, and a suitable closure for the ends of the collars.

2. The combination of the fixed collar provided with the lateral discharge opening, and with the vent tube notch, the vent tube closing spring and the vent tube retaining shoulder; the loose movable collar fitted to the fixed collar and adapted to partially rotate with relation to the same and provided with the spout opening and adapted and arranged to register with the discharge opening of the fixed collar at one point in its rotation and to register with the wall of the fixed collar at another portion of its rotation; and the vent tube secured to the movable collar and opening into the inside of the fixed collar and adapted to fit beneath the vent tube retaining shoulder and engage the vent tube closing spring, and a suitable closure for the outer ends of the collars.

3. A lamp filler comprising the fixed and movable collars and the suitable closure for the outer ends thereof and provided with the spout opening and the spout and with the vent tube fixed to the spout, and having its interior opening arranged within the collars opposite the spout opening.

ISAAC W. LORD.

Witnesses:

JAMES R. TOWNSEND,
O. C. MATTHAY.