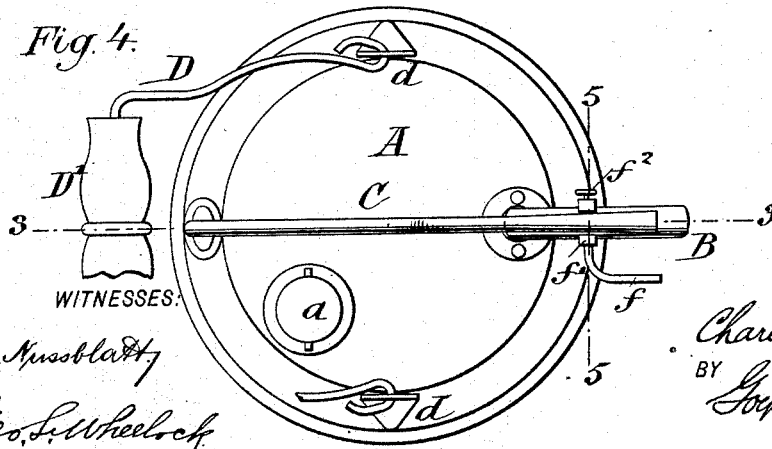
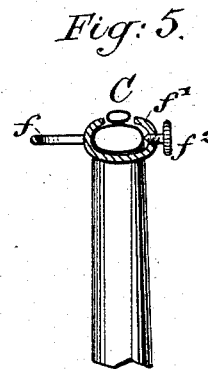
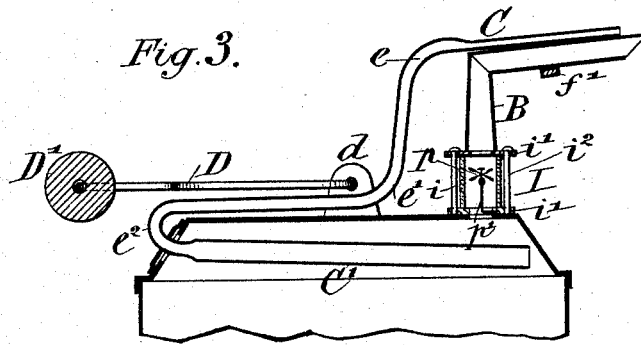
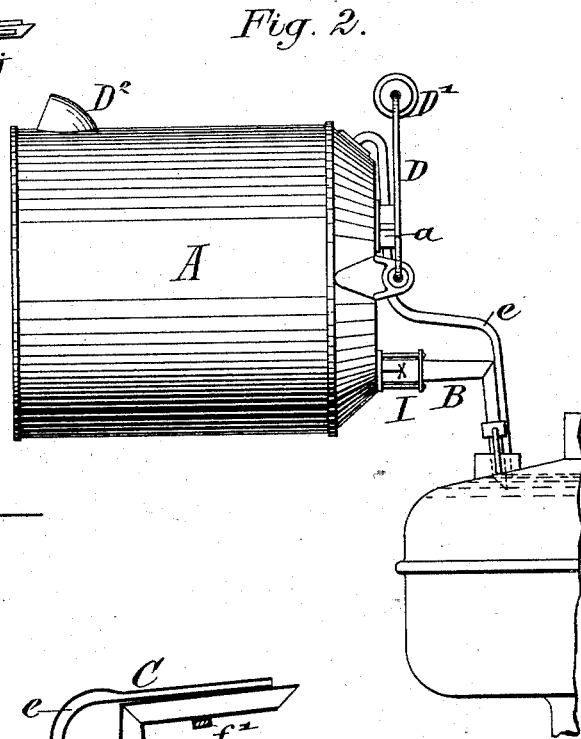
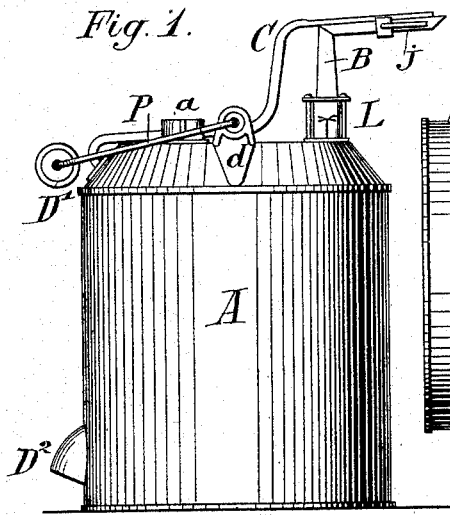


(No Model.)

C. SIEMERS.
OIL CAN.

No. 522,743.

Patented July 10, 1894.



WITNESSES:
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UNITED STATES PATENT OFFICE.

CHARLES SIEMERS, OF OZONE PARK, NEW YORK.

OIL-CAN.

SPECIFICATION forming part of Letters Patent No. 522,743, dated July 10, 1894.

Application filed March 7, 1894. Serial No. 502,665. (No model.)

To all whom it may concern:

Be it known that I, CHARLES SIEMERS, a citizen of the United States, residing at Ozone Park, in the county of Queens and State of New York, have invented certain new and useful Improvements in Oil-Cans, of which the following is a specification.

This invention relates to certain improvements in oil-cans, by which the fountains of lamps can be filled to the required level without danger of overflowing and without removing the filling cap of the can, the vent being supplied by means of a special vent-tube and the flow of the oil indicated by means of an indicating device so that it can be readily observed when the fount is filled to the required level; and the invention consists of an oil-can, the spout of which is connected by a vent-tube that extends from the discharge-orifice of the spout over the top of the oil-can and through the same to the interior of the can to a point below the point of connection of the spout with the top of the can. An adjustable stop-arm is applied to the spout by means of a clamping-device, said stop-arm being adapted to rest on the outside of the fount so as to give a support to the spout and hold it in the required position in the filling orifice of the fount, so that the supply of oil is interrupted when the level of oil closes the discharge-orifice of the spout and the end of the vent-tube.

The invention consists further of an indicator arranged at the base of the spout at its point of connection with the top of the can, said indicator being formed of a glass tube that is firmly supported between ring-shaped plates, and of a small paddle-wheel that rotates on a spindle within the glass tube, the paddle-wheel being rotated by the flow of oil and stopped as soon as the fount is filled to the required level, so as to visually indicate thereby that the fount is filled to the required point.

In the accompanying drawings, Figure 1 represents a side elevation of my improved oil-can. Fig. 2 is also a side elevation of the can, showing the same in tilted position in the act of filling a lamp-fount. Fig. 3 is a vertical longitudinal section on line 3-3, Fig. 4, drawn on a larger scale. Fig. 4 is a top view of the can, and Fig. 5 is a vertical trans-

verse section of the spout, vent-tube and clamping-device of the stop-arm, on line 5-5, Fig. 4, drawn on a still larger scale. 55

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents an oil-can of any suitable shape and size, which is provided at its top part with a filling opening that is closed by a screw-cap *a*. 60

A spout B is applied to the top-part of the can at one side said spout being preferably made of angular or elbow shape.

To lugs *d* on opposite sides of the top of the can is attached a bail D provided with a handle D', which, in connection with a fixed handle D² near the base of the can and at a point diametrically opposite to the spout B, serves to hold the can in tilted position while filling the fount of a lamp. 70

A vent-tube C extends over the spout to the discharge-orifice of the same, said vent-tube being preferably soldered to the end of the spout and then bent in downward direction at *e* to the top of the can, and then diametrically over the same at *e'* to a point at the opposite side of the top, where it is bent at *e²* and passed through an opening in the top of the can to the inside of the same, it being then extended below and substantially parallel with the top of the can in diametrical direction toward the opposite side of the latter, and terminating near the wall thereof, as shown clearly in Fig. 3. 85

The interior portion C' of the vent-tube C is preferably made somewhat larger than the exterior portion of the same, so that the oil can enter the interior portion, while the air can easily pass through the column of oil therein and thereby supply the required vent to the interior of the can. 90

A stop-arm *f* which is preferably made of a bent piece of wire, is attached to the spout by means of a U-shaped clamping-device *f'* corresponding to the size of the spout and being provided with a clamping-screw *f²* by which it can be firmly attached to the spout, so that the stop-arm can be attached in position thereon alongside of the vent-tube C, which latter is preferably provided with an indicating-mark to which the clamp *f'* is adjusted. The stop-arm *f* is made of such length as to be approximately in line with the end of 100

the vent-tube C, the stop-arm serving to support the spout after the same is inserted into the filling-opening of the fount, the end of the arm resting on the fount, as shown clearly in Fig. 2.

The stop-arm serves to hold the spout and vent-tube in the required position in the filling-opening of the fount, so that the same can be filled up to the required level, that is to say, until the oil in the fount closes the discharge-orifice of the spout and the end of the vent-tube. As soon as this is accomplished, no air can pass through the vent-tube to the interior of the can and consequently the supply of oil to the fount is positively interrupted, and no running over and spilling of the oil take place.

At the base of the spout B,—that is to say, at its point of connection with the top of the can A, is arranged an indicator I composed of a small cylindrical glass tube which is retained between ring-shaped plates *i'*, the lower plate being soldered to the top of the can, while the upper one is soldered to the end of the spout B. Between the ends of the glass tube *i* and the rings *i'* are preferably interposed suitable gaskets not shown, so that the tight connection between the glass tube and the rings is obtained, and any leakage of oil prevented. The rings *i'* are connected by means of connecting-rods or screws *i²* which are preferably screwed at one end into the base-ring *i'*, the headed upper ends of the rods *i²* being nicked for screwing in the rods. At the interior of the glass tube *i* is arranged a miniature paddle-wheel *p*, the hub of which is supported at the end of a small wire spindle *p'* the lower end of which is bent at right-angles and inserted into a groove of the lower ring *i'*, being soldered or otherwise attached in the said groove, as shown clearly in Fig. 3. The spindle *p'* is provided with suitable enlargements, so that the paddle-wheel can turn freely on the end of the same but cannot play loosely thereon.

When a fount is to be filled, the oil-can is tilted into horizontal position, the spout being inserted into the filling-opening of the fount as far as the stop-arm *f* will permit. The oil-can is held by the handles *D' D²* in horizontal or tilted position, as shown in Fig. 2, so that the oil passes in a continuous flow through the indicator I and the spout into the fount. As soon as the flow of oil through the spout commences, the air is drawn in through the vent-tube C to the interior of the can, the supply of air corresponding to the quantity of oil discharged from the can and the vacuum formed in the same drawing the air through the exterior portion of the vent-tube and through the larger interior portion *C'* of the same, so that it passes through the column of oil in the latter and produces thereby a gurgling noise, which continues as long as the oil flows through the spout. As soon as the level of the oil in the fount rises to such an extent

that the oil will close the orifice of the spout and of the vent-tube, the air is prevented from passing to the interior of the can and the flow of oil is interrupted and the gurgling noise instantly stopped. The cessation of the noise indicates that the fount is filled to the required level, whereupon the oil-can can be removed from the same. In addition to the stopping of the gurgling noise produced by the drawing in of the air to the interior of the can, the indicator I forms a visual means by which the flow of oil and the interruption of the flow are indicated. As long as the oil flows through the spout into the fount, the paddle-wheel is continually rotated on its spindle, but this rotating motion is immediately stopped as soon as the oil closes the orifices of the spout and vent-tube. When the motion of the paddle-wheel is stopped, it indicates thereby that the fount is filled to the required level. In this manner the paddle-wheel of the indicator forms a direct means for indicating the moment when the fount is filled, so that even in case the cessation of the noise caused by the inward passage of the air through the vent-tube should not be noticed for one reason or another, the visual indicator forms a visual means of indicating that the flow of oil has ceased and that the fount is filled.

It is obvious that the oil-can may be made with or without the indicator I, but I prefer to use the same, as it forms a convenient means of indicating when the fount is filled, independently of the noise caused by the inward rush of the air into the can. Owing to the position of the interior portion *C'* of the vent-tube, the inner end of the same is covered with oil until the can is entirely empty, and consequently the noise produced by the inward passage of the air, as well as the rotary motion of the paddle-wheel of the indicator, is kept up until the last drop of oil is discharged from the can.

When the fount is filled and the spout removed from the filling-opening thereof the drop of oil on the vent-tube passes into and through the same into the interior of the can, as the inward rush of air carries the drop of oil throughout the entire length of the vent-tube to the interior of the can, while the small quantity of oil at the end of the spout is likewise carried down through the spout into the can, when the latter is placed in upright position, so that no dripping of oil takes place at the orifices of the spout and vent-tube.

My improved oil-can has the advantage that after the same is filled it does not require the loosening or opening of the screw-cap *a* to give vent to the interior of the same, the vent-tube serving for this purpose and keeping up the flow of oil until the fount is filled, without any danger of spilling the least drop of oil in filling the fount. The stop-arm facilitates the holding of the spout in proper position on the fount, while the gurgling noise

produced by the inward passage of air into the can and the indicator produce aural and visual signs when the fount is filled, so that the can can be removed from the same.

5 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with an oil-can, of a spout arranged in the top of the same, and a
10 vent-tube which extends from a point near the outlet orifice of the spout diametrically over the top of the can and through an opening in the same, and then at the interior of the can back to a point at the opposite side
15 of the said opening of the same, substantially as set forth.

2. The combination, with an oil-can, of a spout attached to the top of the same, a vent-tube extending at the outside from a point
20 near the outlet orifice of the spout diametrically across the top of the can and to the inside of same, and at the inside diametrically toward the opposite side of the same, the interior portion of the spout being of slightly
25 larger diameter than the exterior portion, substantially as set forth.

3. The combination with an oil-can provided with a spout, of a movable L-shaped stop-arm fixed to and extending longitudi-
30 nally of the spout and adapted to afford a support for the can when pouring oil, and means

for adjusting the stop-arm along the spout, substantially as set forth.

4. The combination, with an oil-can, provided with a spout, of an L-shaped stop-arm
35 arranged along-side of the spout, a clamp corresponding to the shape of the spout and from which one portion of said L-shaped arm extends, the other end of said arm extending
40 parallel with the spout, and a clamping-screw for attaching said clamp to the spout, so as to adjust the stop-arm along the same, substantially as set forth.

5. The combination of an oil-can, a spout located at the top-part of the same, and a visual indicator interposed between the can and
45 spout, composed of a glass tube, ring-shaped plates at both ends of the glass tube, one of which plates is fastened to the can and the other to the spout, connecting-rods for said
50 ring-shaped plates located outside of the glass tube, a spindle at the center of the glass tube, and a miniature paddle-wheel, the hub of which is supported on said spindle, substantially as set forth. 55

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CHARLES SIEMERS.

Witnesses:

F. SIEMERS,
A. SIEMERS.