

(No Model.)

A. H. & T. A. SCHLUETER.
FAUCET FOR OIL CANS.

No. 509,769.

Patented Nov. 28, 1893.

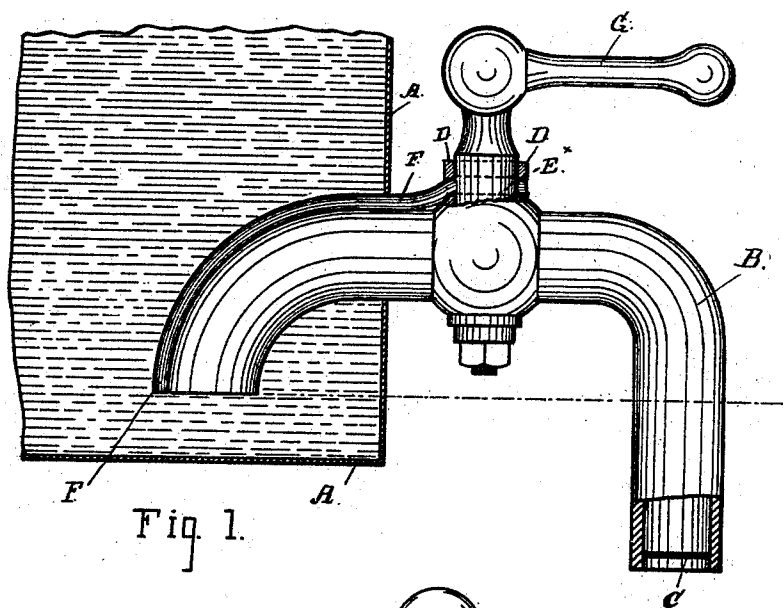


Fig. 1.

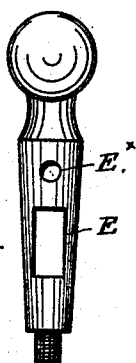


Fig. 2.

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UNITED STATES PATENT OFFICE.

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FAUCET FOR OIL-CANS.

SPECIFICATION forming part of Letters Patent No. 509,769, dated November 28, 1893.

Application filed November 10, 1892. Serial No. 451,517. (No model.)

To all whom it may concern:

Be it known that we, ADOLPH H. SCHLUETER and THEODORE A. SCHLUETER, citizens of the United States, residing at Oakland, in the county of Alameda and State of California, have invented a new and useful Improvement in Faucets for Oil-Cans and other Liquid-Receptacles, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a view in elevation of our faucet attached to a can. Fig. 2 represents a view also in elevation of the plug or valve.

Our invention relates especially to a faucet for drawing oil from cans and other packages containing liquids and fluids under atmospheric pressure and it consists in the novel construction and arrangement of the parts as hereinafter more fully set forth and claimed.

The object of our invention is to provide a means whereby the receptacle or lamp into which the oil or liquid from the package is withdrawn will not overflow.

The nature and operation of the device will be readily understood by all conversant with such matters from the following explanation, its great simplicity rendering an elaborate description unnecessary.

In the drawings A represents an oil-can charged with oil the side of which is perforated to receive the draw-off portion of the faucet, which portion is turned down to near the bottom of the can so as to take the last of the liquid therefrom. That portion of the barrel in front of the cock or valve is curved as at B to form a siphon and the lower end is provided with a strainer C which stands horizontally across the mouth of this siphon end and will prevent the oil from dripping after the cock or valve is closed. The top of the valve-seat is cast with an extended thimble D and the cock or valve has the usual draw-off aperture E, and above this a hole E^x extending through the valve. An air-tube F intersects with the hole E^x of the valve passing through the extended part of the

thimble and along down the outside of the faucet conforming to its curvature terminating with the draw-off portion of the faucet in the interior of the can A. When the valve is opened the liquid will tend to flow through the passage B with a pressure equal to the difference between the atmospheric pressure and the pressure on the surface of the liquid in the can, plus the head of liquid at the mouth or outlet end of said passage. There also tends to be a flow through the passage F due to the difference between the atmospheric pressure and the pressure on the surface of the liquid in the can plus the height of the column of the liquid at the mouth E^x of said passage. The liquid will flow through both passages until the pressure on its surface in the can, plus the head at the mouth of the passage F, equals the atmospheric pressure; whereupon, the flow in passage B continuing, air will enter passage F, drive the liquid out of it, and enter the can, the mouth of passage B being below the level of the inner end of passage F. Up to this point the operation will be found in practice to be almost instantaneous, and little or no liquid will escape through passage F. The air that enters the can will maintain such a pressure on the surface of the liquid therein that that pressure plus the head of the liquid at the inner end of the air passage will equal the atmospheric pressure. Liquid will therefore continue to flow through passage B, due to the head produced by its mouth being lower than the inner end of the air passage. When the surface of the liquid in the receptacle being filled reaches the level of the inner end of the air passage, the pressure at the ends of the passage B will be equalized, (unless more air enters the can,) and the flow through said passage will cease. It is evident that no air can now enter this passage, its mouth being trapped by the liquid in the receptacle being filled, neither can an appreciable amount of air enter the air passage for this reason. Suppose a little air to enter: this would increase the pressure on the surface of the liquid in the can, which pressure, plus the head of liquid at the inner end of the passage, will then be greater than the atmospheric pressure.

Liquid will then rise in this passage, which, of course, will prevent the entrance of more air. In this manner the receptacle being filled will be prevented from overflowing. After 5 the receptacle is filled and the flow of liquid through the passage B is thus automatically checked, the cock is turned so as to close the passage B and the air tube F. Thereafter, 10 when the receptacle is removed from the outlet end of the passage, the liquid in the passage which is below the level of the inlet end thereof will be prevented by the presence of the strainer C from running out, which might 15 allow more liquid than desired to flow into said receptacle. It will thus be seen that the can will always be under atmospheric pressure and when the cock is open air will flow into the can or receptacle and force the contents out through the faucet and siphon in 20 a constant manner.

Having thus explained our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination with an oil can or other 25 closed liquid receptacle; of a faucet whose draw-off end enters the side of the can and is turned down to near the bottom thereof, and whose outlet end is turned down and extends to a lower point than the draw-off end to form 30 a siphon, a horizontal strainer across the

mouth of the outlet end, an air tube leading from within the can at a point flush with said inlet end, out along the faucet, and through the thimble, and a cock in the latter having 35 openings arranged to open the faucet and air tube simultaneously, as and for the purpose set forth.

2. The combination with an oil can or other closed liquid receptacle; of a faucet whose draw-off end enters the side of the can and 40 is turned down to near the bottom thereof, and whose other end is turned down and extends to a lower point than the draw-off end to form a siphon, an air tube leading from the inlet end of the draw-off portion of the 45 faucet, along the same, out through the side of the can, and through the thimble to and terminating at the outer side thereof, and a vertically disposed cock in said thimble having horizontal openings arranged to open and 50 close the faucet and air tube simultaneously, as and for the purpose set forth.

In testimony that we claim the foregoing we have hereunto set our hands and seals.

ADOLPH H. SCHLUETER. [L. S.]
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Witnesses:

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