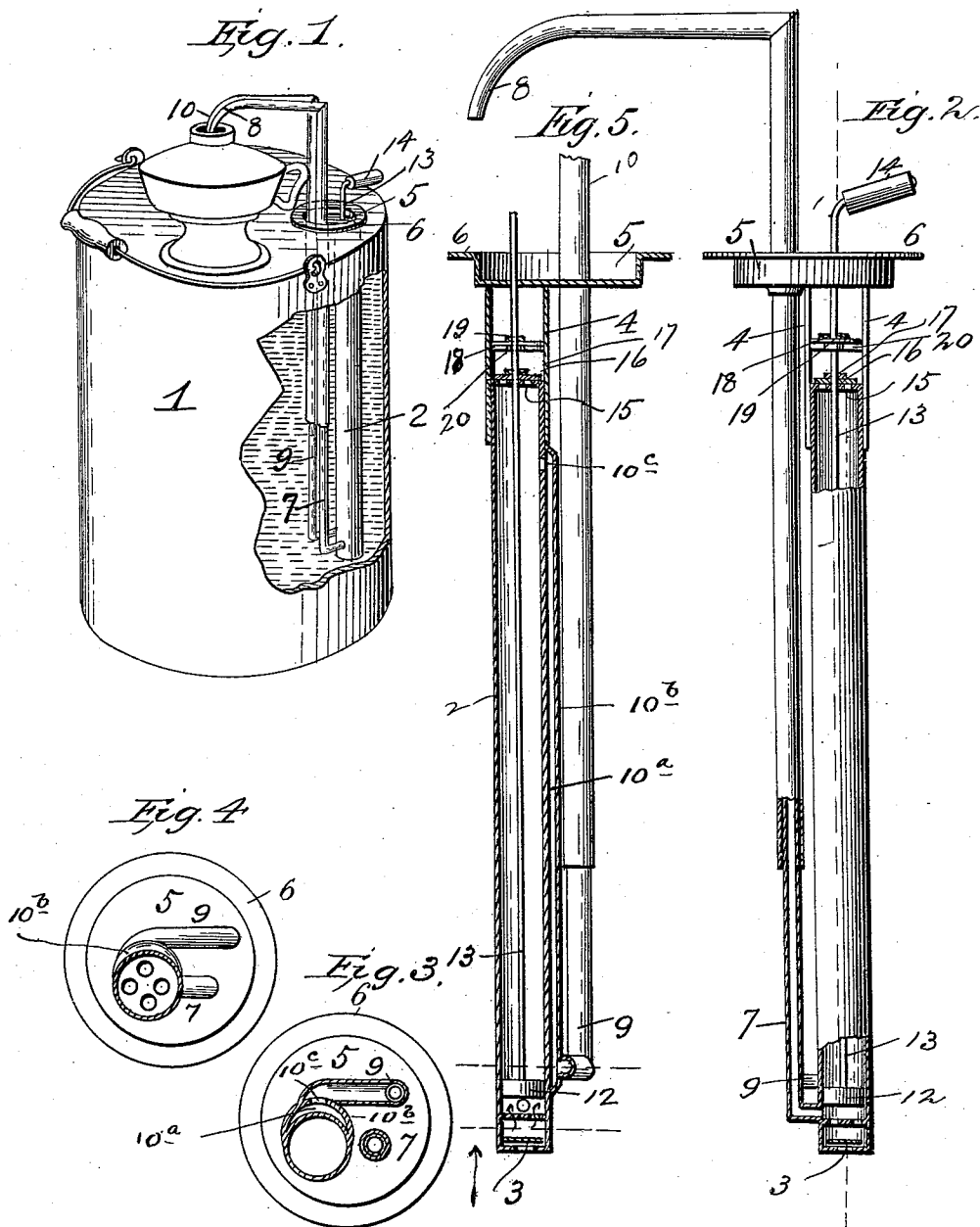


(No Model.)

F. C. SMITH.
PUMP FOR OIL CANS.

No. 538,798.

Patented May 7, 1895.



WITNESSES.
H. L. Curand
W. L. Leomby

INVENTOR.
Fred C. Smith,
J. L. Rogers & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

FRED CLINTON SMITH, OF BLOOMINGTON, ILLINOIS.

PUMP FOR OIL-CANS.

SPECIFICATION forming part of Letters Patent No. 528,798, dated May 7, 1895.

Application filed October 20, 1894. Serial No. 526,442. (No model.)

To all whom it may concern:

Be it known that I, FRED CLINTON SMITH, a citizen of the United States, and a resident of Bloomington, in the county of McLean and State of Illinois, have invented certain new and useful Improvements in Pumps for Oil-Cans; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to pumps designed more particularly for filling lamps from oil cans, and its object is to provide an improved construction of the same, whereby the overflowing of the lamp is rendered impossible, as the surplus oil is drawn back into the pump, as fast as fed to the lamp.

The invention consists in the novel construction and combination of parts herein-after fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of an oil-can, partly broken away, showing my improved pump used in connection therewith. Fig. 2 is an elevation of the pump. Figs. 3 and 4 are horizontal sectional views of the same. Fig. 5 is a longitudinal sectional view.

In the said drawings, the reference numeral 1 designates an oil can or other receptacle having an aperture in the top for the passage of the pump.

The numeral 2 designates the pump barrel or cylinder having an upwardly opening valve 3 in its lower end. At its upper end the barrel is provided with two upwardly extending arms 4, which support a disk-shaped cap or cup 5, which fits in the aperture in the top of the can and is supported on the can by the flange 6. Secured to the lower end of the barrel is an upwardly extending pipe 7, which is the supply or feed pipe. This pipe is preferably made in two parts, telescoping into each other, and is bent laterally outward, and then turned downwardly, forming a nozzle 8. A short distance above said pipe is a similar pipe 9, formed in two parts, and provided with a nozzle 10. This pipe is the suction or return pipe, and at its lower end it communicates with a vertical chamber 10^a formed

by soldering a curved piece of sheet metal 10^b to the pump barrel. Near the upper end of this chamber is an opening 10^c leading to the pump barrel.

Located in the pump barrel is a plunger 12 with which is connected a rod 13 which passes up through the top of the barrel, and also through the cap 5, and is provided with a handle 14. The top of the barrel is formed with perforations 15, which are closed on the down-stroke of the plunger by a leather valve 16 and washer 17 on the rod 13. Washers 18 and 19 serve to make a tight joint between the rod and the aperture in the cap 5, on the up-stroke of the plunger. A cross rod or rods 20 secured to the arms 4, limit the movement of the washers.

The operation is as follows: The pump is placed in the oil can and the nozzles 8 and 10 inserted in the filling aperture of a lamp. The plunger is now reciprocated, the valve in the bottom of the pump barrel opening on the up-stroke of the plunger to admit oil therein, and closing on the down-stroke, so that the oil will be forced through the feed pipe 7 into the lamp. When the oil in the lamp reaches the nozzles 8 and 10, on the down-stroke of the plunger, any surplus oil fed to the lamp will be drawn back into the barrel through the suction pipe 9, and any oil escaping above the plunger, will be forced out through the openings in the top of the barrel, into the can. It will thus be seen that it is impossible to overflow the lamp, as any excess of oil is drawn back into the pump as fast as fed thereto. The pump is very simple in construction; the only valves employed being the ones at the top and bottom of the barrel, so that there is no liability of its getting out of order, and it can also be manufactured very cheaply, owing to the few parts of which it is composed.

While the pump is intended primarily, as above stated, for filling lamps, it may be used for any other purpose for which it may be found suitable.

Having thus fully described my invention, what I claim is—

1. The combination with the pump barrel, the curved plate secured thereto closed at top and bottom forming a vertical chamber, provided with an opening near its upper end

communicating with the pump barrel, the plunger and its rod and the valve in the lower end of the barrel, of the valveless suction pipe communicating with said chamber near the lower end thereof and the valveless feed pipe communicating with the lower end of the barrel, substantially as described.

2. The combination with the pump barrel having a valve in its lower end, and a cover or top formed with openings therein, the plunger, the rod connected therewith for opening and closing said openings, of the feed pipe connected with said barrel near the lower end and formed with a nozzle, the curved plate secured to the exterior of the pump barrel forming a vertical chamber closed at top and bottom and communicating near its upper end with the barrel, the suction pipe connected with the said chamber at the lower end thereof and also formed with a nozzle, substantially as described.

3. The combination with the pump barrel having a valve in its lower end and a cover formed with openings therein, the plunger, the rod connected therewith, the valve and washers on said rod, the arms secured to said barrel, the cap secured to said arms, and the cross bar, of the feed pipe connected with said barrel near the lower end thereof and formed with a nozzle, the curved plate forming a chamber communicating with the pump barrel, the suction pipe connected with the chamber and also formed with a nozzle, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

FRED CLINTON SMITH.

Witnesses:

L. C. HAY,

R. R. CHURCHILL.