

No. 608,274.

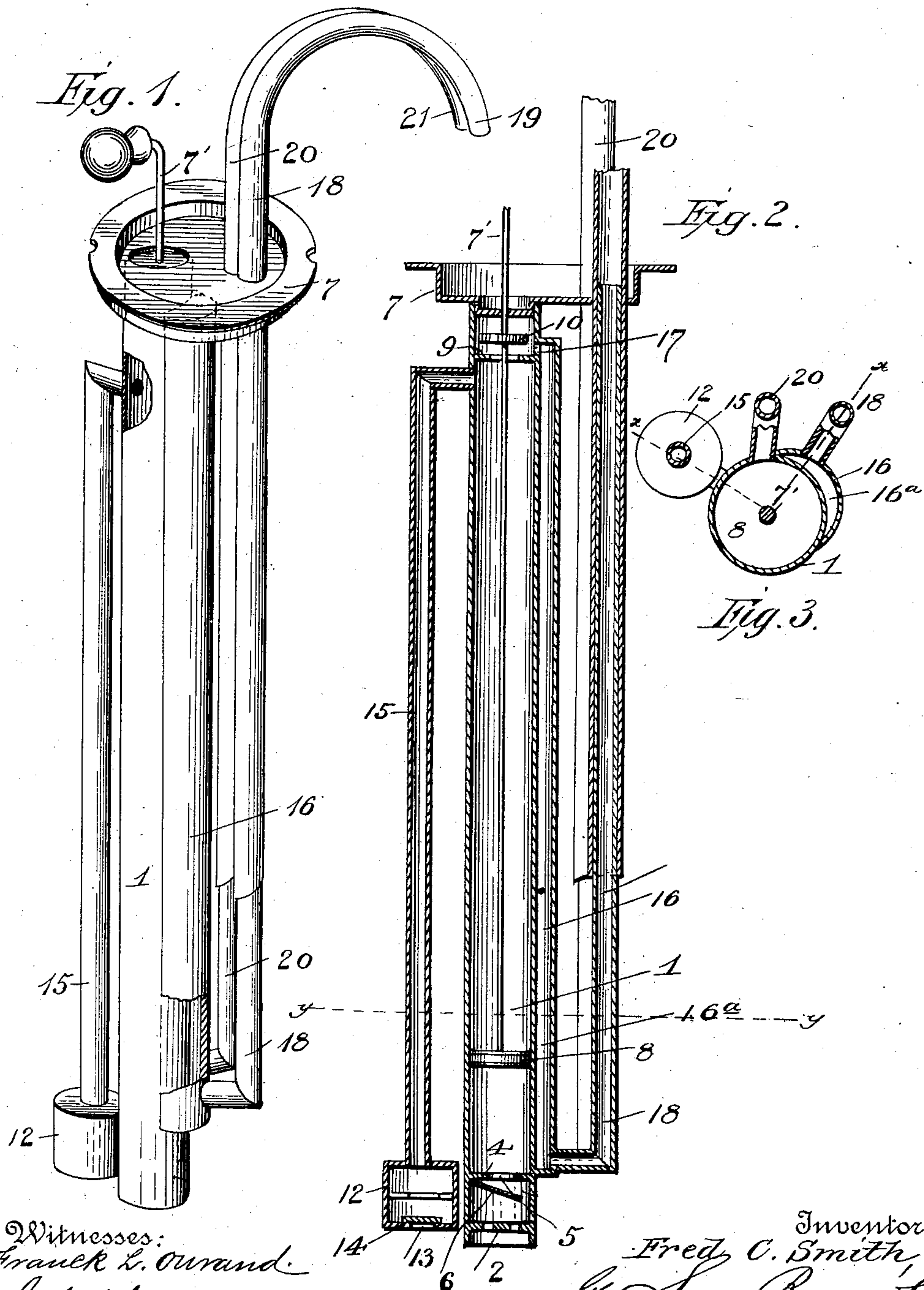
Patented Aug. 2, 1898.

F. C. SMITH.

OIL PUMP.

(Application filed May 18, 1897.)

(No Model.)



Witnesses:  
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# UNITED STATES PATENT OFFICE.

FRED CLINTON SMITH, OF DELAVAN, WISCONSIN.

## OIL-PUMP.

SPECIFICATION forming part of Letters Patent No. 608,274, dated August 2, 1898.

Application filed May 18, 1897. Serial No. 637,113. (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 Delavan, in the county of Walworth and State of Wisconsin, have invented certain new and useful Improvements in Oil-Pumps; 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 oil-pumps of that class or description which are employed for filling lamps from oil tanks or receptacles and in which when the lamp is filled any surplus oil supplied thereto will be sucked back into the tank and overflowing of the lamp prevented.

The object of the present invention is to provide an improved construction of such pumps which shall possess superior advantages with respect to efficiency in operation.

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, partly broken away, of an oil-pump constructed in accordance with my invention. Fig. 2 is a longitudinal sectional view on the line *xx*, Fig. 3. Fig. 3 is a horizontal section on the line *yy*, Fig. 2.

In the said drawings the reference-numeral 1 designates the pump barrel or cylinder, having a partition 2 near its lower end. Located above said partition is a partition 4, having a central opening 5, and between said partitions is a hinged or flap valve 6.

The numeral 7 designates the top of the pump-barrel, of a larger diameter than the latter, and seats upon the top of oil tank or receptacle. (Not shown.) This cover is provided with an opening for the plunger-rod 7', to the lower end of which is secured the plunger 8. Near the upper end of the pump-barrel is a partition 9, having a central opening larger than the plunger-rod which passes therethrough, and working on said rod is a valve 10, consisting of a leather disk located between said partition and the cover or top 7. Secured to the pump-barrel near the lower

end is a valve-chamber 12, having an opening 13 in its lower end, and located in this chamber is a disk valve 14. Connected with said valve-chamber is a vertical pipe 15, which communicates with the upper end of the pump-barrel just below the partition 9. Secured to the outer side of the pump-barrel is a curved plate 16, forming a vertical chamber 16<sup>a</sup>, closed at the upper and lower ends. There is a passage or opening 17 at the upper end of this chamber, which establishes communication with the pump-barrel above the partition 9. Connected with the lower end of said chamber is an upwardly-extending pipe 18, which passes through the top 7 and is curved downwardly, forming a nozzle 19. The numeral 20 designates a similar pipe provided with a nozzle 21. This pipe 20 is connected with the pump-barrel just above the partition 4.

The operation is as follows: The pump is inserted in the oil-tank (not shown) through an opening in the top, with the cover or top 7 resting on the top of the tank. The lamp to be filled is then placed on the tank, with the nozzles extending down through the filling-opening therein. The plunger is then reciprocated, and on the downstroke of the same the valve 14 is opened and oil is drawn into the pump-barrel through pipe 15, the valve 10 closing the opening in the partition 9. Upon the upstroke of the plunger the valve 10 will rise and uncover the opening in partition 9, and the oil in the barrel will be forced through passage or opening 17 into the chamber 16<sup>a</sup>, and from thence out through pipe 18 and nozzle 19 into the lamp. When the oil in the lamp reaches the nozzles, the excess thereof will be sucked down through pipe 20 into the pump-barrel on the upstroke of the plunger, valve 6 closing the opening in partition 4. On the downstroke of the plunger the valve 6 will open and the oil sucked into the barrel through pipe 20 will be forced out of the lower end of the barrel into the tank. By this construction there will be no liability of the oil sucked back from the lamp being splashed against the top of the tank and escaping between said top and the top of the pump-barrel.

From the above it will be seen that there will be no possibility of the lamp overflowing,

as any excess of oil is sucked back into the tank as fast as fed to the lamp.

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

5 In an oil-pump the combination with the pump-barrel, the partitions in the lower end of said barrel formed with openings, the valve located between said partitions, the valve-casing secured to said pump-barrel having an  
10 opening in the lower end, the valve, the pipe connected with said casing and communicating with the upper end of the pump-barrel, the apertured partition, the plunger-rod, the  
15 valve on the plunger-rod, of the curved plate

forming a chamber at one side of the pump-barrel and communicating with the upper end of said barrel, the upwardly-extending pipe connected with the lower end of said chamber and provided with a curved nozzle, and the 20 pipe connected with the lower end of the pump-barrel, provided with a curved nozzle, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature 25 in presence of two witnesses.

FRED CLINTON SMITH.

Witnesses:

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