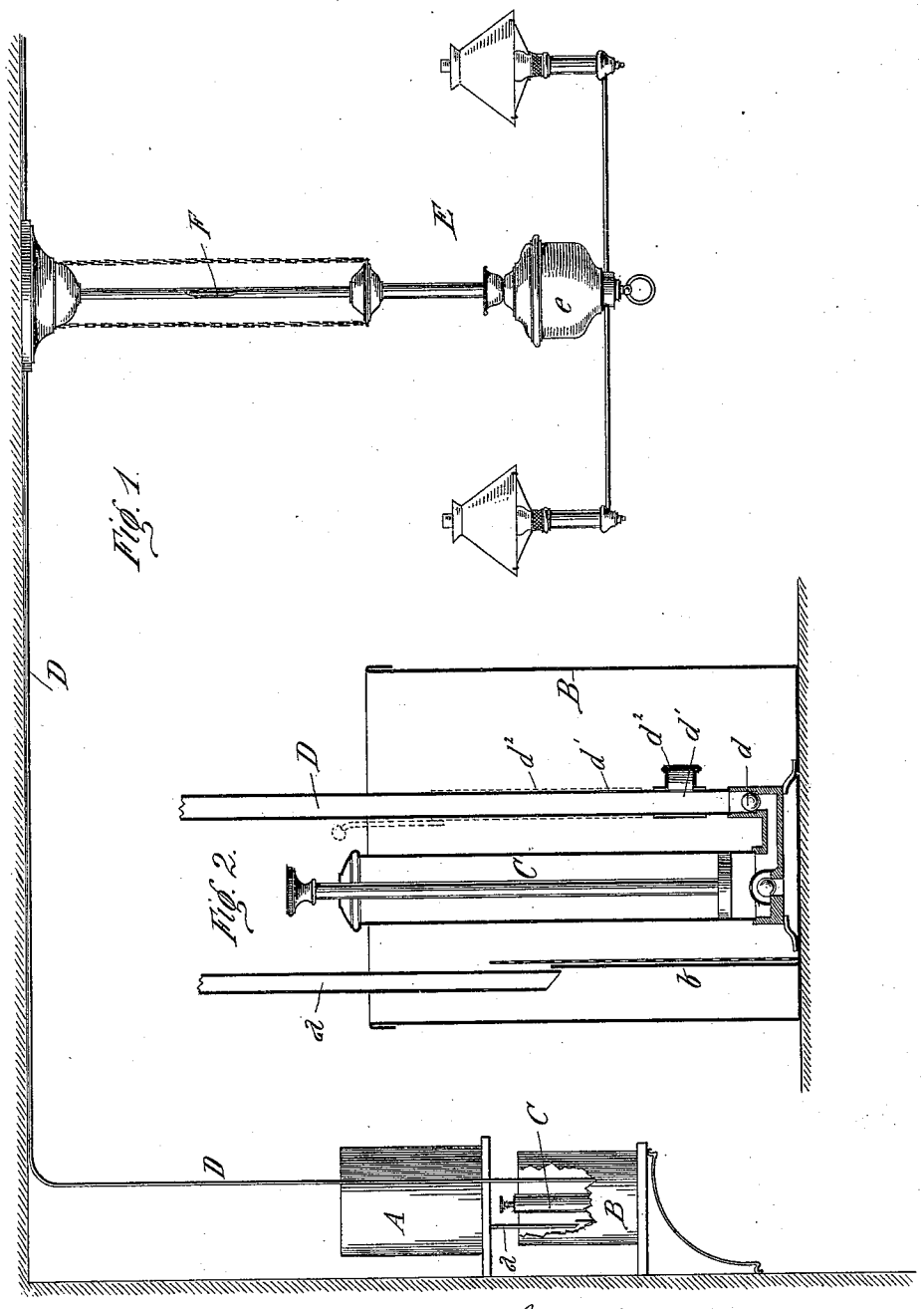
(No Model.) 2 Sheets—Sheet 1.

C. MASCHMEYER.

OIL SUPPLYING DEVICE.

No. 550,932. Patented Dec. 3, 1895.



WITNESSES:

H. B. Adler

Geo. M. Shettenden

Charles Maschmeyer INVENTOR

BY Geo. L. Cooper ATTORNEY.

(No Model.) 2 Sheets—Sheet 2.

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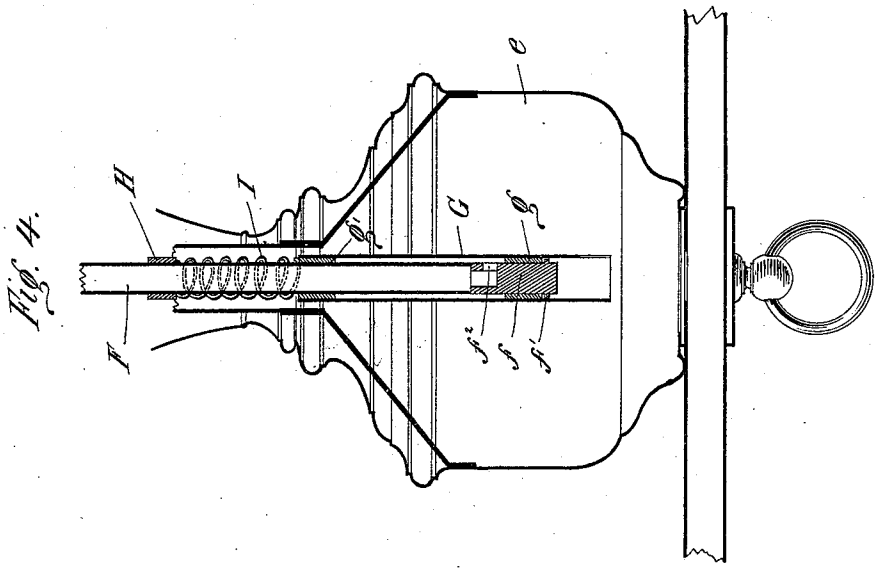
Fig. 4.



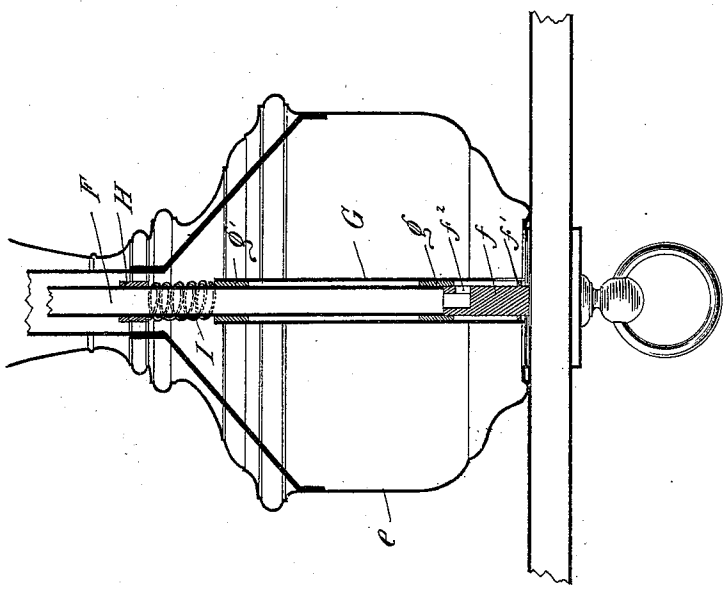


Fig. 3.

WITNESSES.

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UNITED STATES PATENT OFFICE.

CHARLES MASCHMEYER, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE EDWARD MILLER & COMPANY, OF SAME PLACE.

OIL-SUPPLYING DEVICE.

SPECIFICATION forming part of Letters Patent No. 550,932, dated December 3, 1895.

Application filed December 22, 1894. Serial No. 532,745. (No model.)

To all whom it may concern:

Be it known that I, CHARLES MASCHMEYER, a citizen of the United States, residing at Meriden, New Haven county, Connecticut, have invented a new and useful Improvement in Oil-Supplying Devices, of which the following is a specification.

My invention relates to that class of oil-supplying devices in which a plurality of chandeliers, brackets, or the like is fed with oil from a tank through a system of overhead pipes or tubes. It is intended to provide a simple and safe means of supplying oil through such pipe system.

In the accompanying drawings, Figure 1 is an elevation, partly broken away, of my complete device. Fig. 2 in vertical section shows a portion of my device. Figs. 3 and 4, also in vertical section, show another portion of my device in different positions.

The same letters refer to like parts in the several views.

A designates a movable tank provided with neck *a;* B, a stationary supply-tank; *b*, a partition in the tank B; C, a pump; D, an oil-conducting pipe or siphon provided at its inlet end with a valve *d;* *d'*, a side inlet in the pipe D, provided with a stopper d^2; E, a chandelier; *e*, an oil-fount at the lower end of the chandelier E; F, an oil-tube leading from the pipe D; F, a plug closing the lower end of the tube F; *f'*, a collar on the plug *f;* f^2, an outlet in the side of the tube F; G, a sleeve on the tube F; *g g'*, annuli in the sleeve G; H, a collar; I, a spring.

In the example of my invention illustrated in the drawings the tank A is removably supported in any desired manner so that the free end of the neck *a* is within the tank B. The tank B is preferably stationary and on a level with the oil-founts *e* on the chandeliers E. The tank B may have a vertical partition *b*, as shown. Within the tank B is placed a force-pump C, the handle of which extends above the top of the tank, or so as to be conveniently grasped by the operator. To the mouth or outlet of the pump C is secured the inlet end of the oil-conducting pipe D, which is provided with a valve *d*. Near the inlet end of the pipe D is an aperture *d'*, which may be tightly closed by a stopper d^2. As shown, the aperture *d'* and the stopper d^2 are screw-threaded, one internally and the other externally. I have shown in dotted lines the aperture *d'* as drilled through the side of the pipe D and the stopper d^2 as a sleeve vertically movable on the pipe D and provided with a stem or handle extending to the top of the tank. The pipe D rises, preferably, to or above the ceiling of the room in which the device is placed, thence horizontally, and connects with the tube F, which passes downward through the axis of the chandelier E to the oil-fount *e*. The lower end of the tube F is closed by a plug *f*, on which may be a collar *f'*, the function of which will shortly appear.

Near the lower end of the tube F is a lateral outlet f^2, through which the oil normally flows into the fount *e* of the chandelier E. Surrounding the lower end of the tube F is the sleeve G, of somewhat larger diameter than the tube and provided with internal annuli *g* and *g'*, one of which, *g*, is near its lower end. These annuli *g* and *g'* are of an internal diameter to fit closely on the tube F and to slide thereon. Above the sleeve G on the tube F is secured a collar H, against the lower end of which abuts a coiled spring I, the lower end of which bears against the annulus *g'*.

The operation of my device will be readily understood from an inspection of the drawings. The tank A, being first filled with oil or any liquid hydrocarbon, is inverted and placed in the position shown in Fig. 1 with its neck *a* within the tank B. Oil will then flow from the tank A to the tank B until the end of the neck *a* is immersed. The tank A being air-tight, it is clear that the remaining oil therein will be barometrically supported until the level of oil in the tank B is lowered. The partition *b* incloses a small portion of the tank B and serves to isolate any bubbles of air which may be carried down with the oil from the tank A and prevent the possibility of their rising in the pipe D. The upper end of the partition *b* may be a little lower than the normal oil-level in tank B, or, being higher, the partition may be foraminous, as shown in dotted lines, Fig. 2. The aperture *d'* being closed by the stopper d^2, the siphon or pipe system D is filled with oil by

means of the pump C. It is understood that there may be several chandeliers E and that they are preferably of ordinary telescopic construction—*i. e.*, that the outer tube, to which is attached the oil-fount *e* and connected parts, is capable of vertical adjustment on a fixed axial portion. Through this axial portion passes the tube F, which is connected with the pipe system D and extends down into the fount *e* of the chandelier. During the operation of pumping oil into the pipe D and tubes F the chandeliers are preferably lowered. The effect of this lowering of the adjustable portion of the chandelier E is to withdraw the support afforded by the bottom of the fount *e* to the sleeve G, which is at once forced downward by the spring I to the position shown in Fig. 4 of the drawings. It will be seen that the annulus *g* is now below the lateral opening *f* in the tube F and that oil cannot now flow into the fount *e*, but can only fill the annular space between the tube *f* and the sleeve G. It is not pretended that the annulus *g* or *g'* makes an air or oil tight fit on the tube F. In practice it is found that the air escapes and that a small amount of oil may drop into the fount *e*, but not in objectionable quantity. When the pipe D and pendent tube F are full of oil, the operator stops pumping and removes the stopper d^2 from the aperture *d'*. The chandeliers are then raised to their normal position and the bottom of the fount *e* strikes against the lower end of the sleeve G and raises the sleeve so that the annulus *g* is above the aperture *f'*. As the outlets *f'* are a little lower than the oil-level in the tank B, a siphonic action is set up in pipe D and tubes F and maintained until the oil in the founts *e* stands nearly at a level with that in the tank. As the oil is consumed at the burners of the chandelier, the action of the siphon is again started and a practically-constant level of oil is maintained in the founts *e* by means of an intermittent flow through the pipe D. When it is desired to trim the wicks or to use the lights for a time at a lower level, the movable portion of the chandelier may be lowered, as above described. Oil then flows out of the outlet *f'* into the annular space between the tube F and the sleeve G until the normal level is reached. If by reason of air accumulating in the pipe D the siphon is "broken," the operation above described of filling the pipe system is repeated. The necessity of doing this may arise once in several weeks or months, requires but a few minutes, and does not imply any climbing or lifting vessels of oil.

It is to be noted that in my device no cock, valve, or other aperture is required in the pipe system between its inlet and outlet points. Hence a potent cause of leakage and danger is avoided.

I am aware that many mechanical alterations may be made in my device without departing from the spirit of my invention.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is as follows:

1. In an oil supplying device in combination an oil tank, an oil fount, a siphon adapted to carry oil by gravity from said tank to said fount, a force pump in said tank attached to an inlet in said siphon and a second inlet in said siphon within said tank, substantially as described.

2. In an oil supplying device in combination an oil tank, an oil fount, a siphon shaped pipe leading from said tank to said fount, two apertures at the inlet end of said pipe, a force pump connected with one of said apertures and means for closing the other of said apertures, substantially as described.

3. In an oil supplying device in combination a pendent discharge tube provided with a lateral aperture near its closed lower end, a vertically adjustable fount into which said pendent tube discharges and a vertically adjustable close fitting sleeve on said tube adapted to move past said aperture, said sleeve being adapted to be raised by said fount when said fount is raised to its normal position, substantially as described.

4. In an oil supplying device in combination a pendent discharge tube provided with a lateral aperture near its closed lower end, a vertically adjustable fount into which said pendent tube discharges; a vertically adjustable sleeve on said tube having an internal annulus or portion of reduced diameter adapted to move past said aperture, the said sleeve being adapted to be raised by said fount when said fount is raised to its normal position, substantially as described.

CHARLES MASCHMEYER.

Witnesses:
GEO. L. COOPER,
GEO. M. CHITTENDEN.