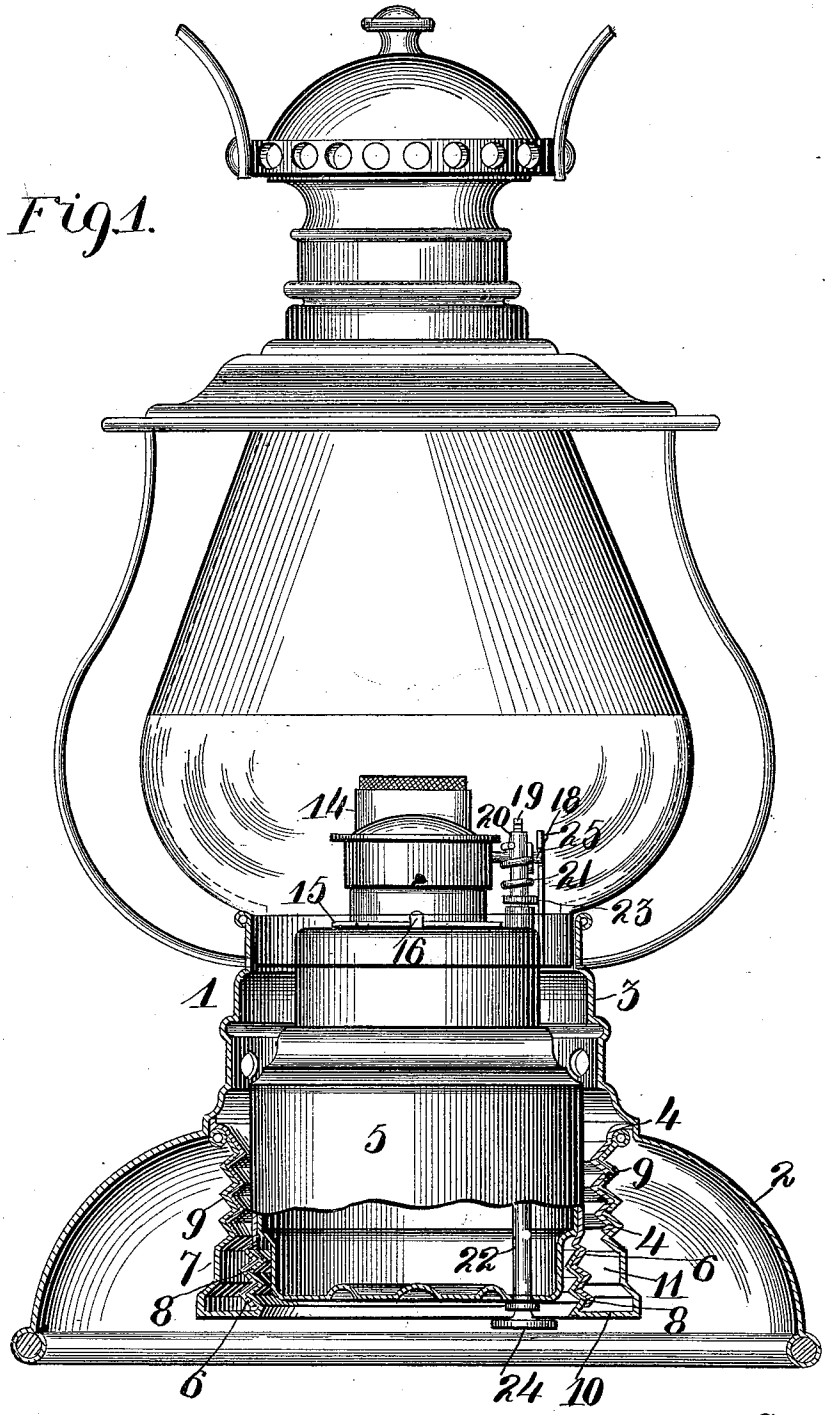
(No Model.) 2 Sheets—Sheet 1.

L. W. SCHEFERS.

LAMP OR LANTERN.

No. 520,866. Patented June 5, 1894.

Fig 1.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

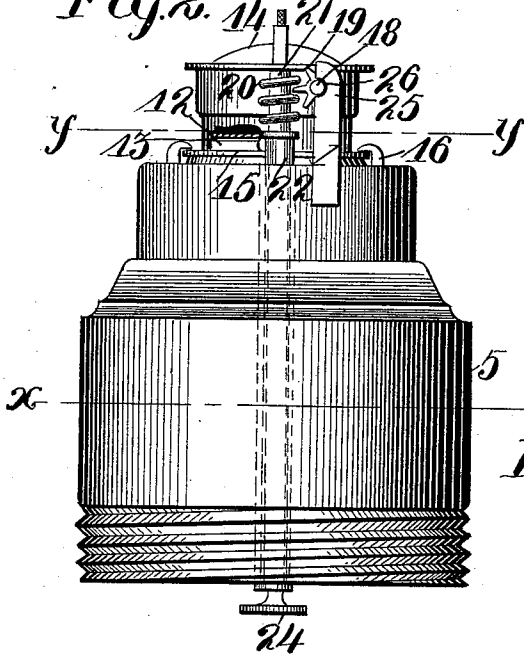


Fig. 3.

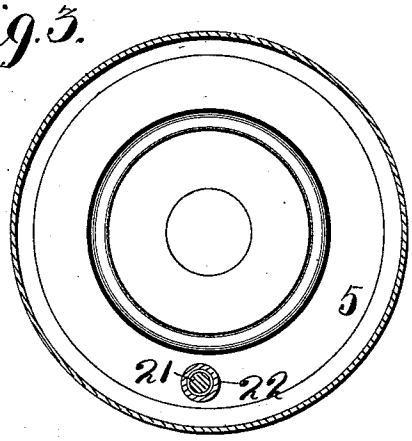


Fig. 4.

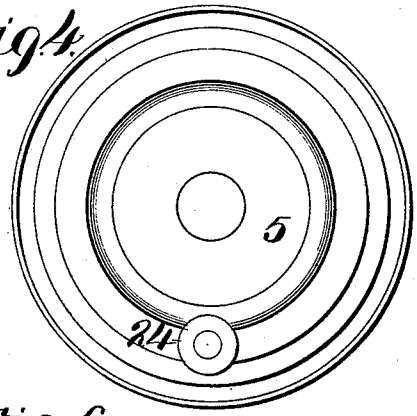


Fig. 5.

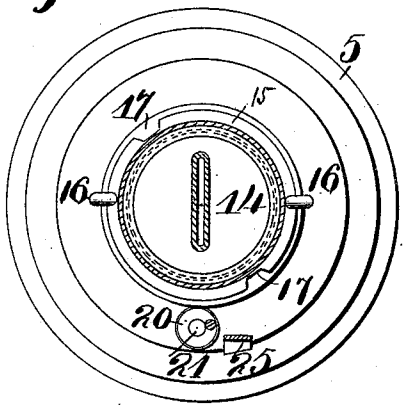
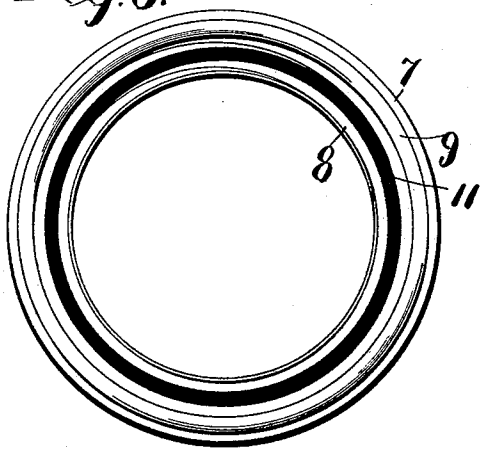


Fig. 6.



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UNITED STATES PATENT OFFICE.

LOUIS W. SCHEFERS, OF ST. LOUIS, MISSOURI.

LAMP OR LANTERN.

SPECIFICATION forming part of Letters Patent No. 520,866, dated June 5, 1894.

Application filed March 21, 1892. Serial No. 425,788. (No model.)

To all whom it may concern:

Be it known that I, LOUIS W. SCHEFERS, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Lamps or Lanterns, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved lamp or lantern, and consists in the novel construction, combination and arrangement of parts hereinafter described and designated in the claims.

The object of my invention is to provide an improved detachable drip-cup for the oil fount, by means of which said oil fount will be connected to the frame of the lamp or lantern and held in a vertical position.

A further object of my invention is to provide improved wick-adjusting devices which may be operated through the vertical central passage in the detachable drip-cup to adjust the wick, without detaching the drip-cup from the frame, and without separating the oil fount from the drip-cup.

In the drawings: Figure 1 is a sectional elevation of a lantern embodying my invention. Fig. 2 is a side elevation of the oil fount and the burner attached thereto. Fig. 3 is a transverse section taken on the line x—x of Fig. 2. Fig. 4 is a bottom plan view of the oil fount and drip cup. Fig. 5 is a horizontal cross-section, taken on the line y—y of Fig. 2, and Fig. 6 is a top plan view of the drip cup detached.

Although my invention is applicable to various styles of lamps and lanterns, I have shown it herein applied only to a lantern.

1 indicates a hand-lamp which is particularly adapted to be used by railway-conductors and others, and which embodies my invention.

2 represents the base of the lamp which is open at the bottom, and having an upper tubular-portion 3 to which the ordinary parts of the lamp are attached, such as chimney, &c.

To the interior cylindrical surface of the base tubular portion of the lamp is attached the upper edge of a pipe or tube 4, in which are formed screw-threads, the same being pressed therein, around which the drip cup is adapted to be screwed, as best shown in Fig. 1.

5 indicates the oil fount which is provided at its lower end with a cylindrical reduced portion, and this reduced portion is surrounded by a vertical screw-threaded flange 6, the upper end of which is secured to said fount, and the lower end of which is free, so that an annular space is provided between said reduced portion and said flange, for a purpose hereinafter mentioned.

7 indicates the drip cup, which is constructed in the form of an annular trough having concentric outer and inner vertical walls, the upper edge of which is free, and the lower edge of which is attached to the bottom 10 of said drip cup, so that the upper end of said drip cup is open, and its lower end closed. The drip cup is constructed of thin metal and is so shaped as to be easily attached to the fount 5 and the lamp proper, and which is adapted to receive all the waste oil passing from the outside of said fount. The inner and outer vertical concentric walls of said drip cup or trough are provided with screw-threaded portions 8 and 9 respectively, which are adapted to engage the screw-threaded flange 6 and the pipe or tube 4, said outer wall of said drip cup being located upon the outer surface of said pipe or tube, and the inner wall of said drip cup being located upon the inner surface of said flange in the space between it and the reduced portion of said oil fount. By this means the drip cup or annular trough is detachably secured to the frame of the lamp or lantern, and the oil fount is detachably secured to and supported by said drip cup, so that when said drip cup is detached from said frame, said oil fount will be detached with it, and afterward said drip cup may be separated from said oil fount. The waste oil passing off from the fount 5 is received by the space 11 formed by said screw-threaded portions 8 and 9, as clearly shown in Fig. 1 of the drawings. After the trough has been attached to the oil fount 5 as before stated, the screw-threaded extension of portion 9, of the said trough can easily be screwed upon the screw-threaded pipe or tube

4, and thus the parts removably attached and the trough placed in position to receive all the waste oil that may pass from said oil fount.

Having given a description of the construction and the manner of attaching the oil-fount 5 to the lamp-casing, I shall now proceed to describe the construction of the burner and the means for operating the same without removing or detaching any of the parts previously referred to.

In constructing the oil fount 5, I dispense with the screw-threads commonly employed for attaching the burner to the same and in place thereof I employ fastening-devices which will more effectually lock the same and further economize the time and labor generally employed in attaching and detaching the burner.

The upper portion or top of the oil fount 5 is provided with an annular flange 12, surrounding the opening formed therein, which is adapted to receive the lower and interior portion 13 of the burner 14, and by which means the said burner is held in its proper position in said oil fount. The lower portion 13 of the said burner is provided with a horizontal projecting flange 15, which is adapted to be received by the hooks 16 attached to the top of the oil fount 5. Adjacent the annular flange 12 the ends of the hooks project in opposite directions, as best shown in Fig. 2 of the drawings, preventing the burner from being removed from the oil fount when in a certain position. The annular horizontal projecting flange is provided with cut-away portions 17, which are oppositely located, as best shown in Fig. 5 for allowing the hooks 16 to be removed from their locked position when the burner is turned in such a position that the said cut-away portions register with the said hooks.

In order to hold the burner 14 in a locked position, or for preventing the same from turning, I employ a mechanism that I shall hereinafter describe.

In order to regulate the wick of the burner from the outside of the lamp, or in other words without removing the oil fount 5 from the casing, I employ a mechanism, which I shall now proceed to describe.

18 represents the shaft, which, when turned, operates the wick in either direction, to which is attached the ordinary spur wheel or wheels located within the burner and in contact with the wick, whereby the same is raised or lowered when the shaft is turned in the proper direction.

To the projecting end of the shaft 18 is secured a spur wheel 19, which is fixed thereto in any desirable manner, the teeth of which are adapted to engage with a worm 20 carried by the upper end of the operating shaft 21.

22 represents a pipe or tube which extends through the oil fount 5 and projects a suitable distance above the top of the same, which is in water tight connection to said fount and through which the operating shaft 21 is passed or located, and adapted to be turned therein. Encircling the said shaft 21 and immediately above the upper edge of the pipe 22, is a collar 23, which holds the said shaft in its proper position and prevents the same from passing out of the said pipe or tube, the construction of which is better shown in Fig. 3. The worm 20 attached to the upper end of the operating shaft 21, may be constructed in any suitable manner, but for the sake of simplicity and cheapness I employ a length of wire, and form the same in any desired shape, and secure the said wire to the shaft in said position, which answers the purpose exactly.

To the lower end of the operating shaft 21 is attached a knob 24, which provides means for readily turning the said shaft, the said knob being located below the bottom of the said oil fount.

To the side of the oil fount 5 and near the upper edge of the same is fixed a flat spring 25, the upper end of which projects a suitable distance and said end is provided with a circular depression or cut-away portion 26, which is formed in the same for receiving the projecting end of the shaft 18 for preventing the burner from being turned only when the said spring is moved from the said shaft, as best shown in Fig. 2 of the drawings.

When it is desired to regulate the wick of the burner, the operating shaft 21 is turned without in any way removing the oil fount from the lamp, which in turn causes the spur wheel 19 to be turned or rotated and consequently the shaft 18 has action upon the wick in the manner previously described.

An important portion of my invention is the construction of the detachable drip cup in the form of an annular trough, having a vertical central passage or opening surrounded by the vertical inner wall thereof, and through which passage the wick moving shaft projects below the bottom of the oil fount, the said vertical passage of said trough being of sufficient size to permit detachment thereof by the revoluble movement without interfering with said wick moving shaft.

It is desirable that the trough be detachable for the reason that it may be readily separated from said fount and inverted without inverting the fount.

The burner in lamps or lanterns of this class is not fitted oil-tight to the oil fount, so that if said fount should be inverted for the purpose of throwing the drippings out of the trough, oil would flow out through the wick tube and through the vent opening in the burner, which is not to be desired.

From the foregoing description it will be seen that all the parts are detachable and very easily cleaned, and further by the use of the annular trough and the construction of same, all waste oil is received and prevented from passing out of the lamp as is very common in lamps of the ordinary construction.

I am aware that prior to my invention a revoluble wick-moving shaft has been extended vertically through the oil-fount so as to be accessible at the bottom of said fount, and so that the wick may be adjusted without removing the fount from the frame of the lamp or lantern. I am further aware that a vertical projecting drip-catching rim has been fixed upon the upper outer side of the oil-fount interior of the supporting frame. I am further aware that prior to my invention drip cups devoid of any vertical central passage have been located upon the bottom of the oil founts of lamps or lanterns, and I hereby disclaim such as of my invention when used separately.

Having fully described my invention, what I claim is—

1. The combination with a handle, and a glass globe, of the frame, having a hollow base provided with an interior depending annular screw-threaded flange, of a drip cup in the form of an annular-trough having concentric vertical outer and inner walls, said outer wall being screw-threaded at its upper end so that its screw-threads will mesh with the threads of said flange on the base, and an oil fount provided at its lower end with an annular threaded flange adapted to mesh with the threaded inner vertical wall of said drip cup, and the drip cup being detachable from the frame, and the oil fount detachable from the drip cup, said oil fount being normally supported in position solely by its connection with said drip cup, substantially as herein specified.

2. The improved lamp or lantern, constructed with a burner having a horizontal outwardly-projecting flange provided with cutaway portions 17, and an oil-fount having an opening in its top, an annular upright flange 12 encircling said opening and adapted to be engaged by said burner, hooks 16 attached to the top of said oil fount so as to register with said cut-away portions 17 of the burner-flange and be engaged by the flange on the burner, portions of the heads of said hooks normally projecting above the flange on the burner, the horizontal burner shaft 18 carried by said burner and having a projecting end, and an upright spring 25 having a free upper end and its lower end fixed to said fount and provided with a depression 26 at a point adjacent to its free upper end, said depression being arranged to receive the projecting end of the said shaft, and thereby lock said burner in position against rotation upon said oil fount, substantially as and for the purpose set forth.

3. The improved lamp or lantern, constructed with a frame an oil fount, a drip cup having a vertical wall surrounding a passage or opening which is formed in said drip cup, means by which the bottom of said oil fount is detachably secured to said drip cup, and a wick-moving shaft extending through said passage or opening of the said drip cup, and connected at its upper end with the burner shaft, whereby the wick of the burner may be adjusted without removing the oil fount from the frame of the lamp or lantern, and the drip cup may be separated from the frame of the lamp or lantern, and from said oil fount, to remove waste oil from said cup, substantially as herein specified.

4. The improved lamp or lantern, having a frame an oil fount, a drip cup in the form of an annular trough, to which the bottom of said oil fount is separably attached to support said fount, said drip cup having a vertical passage or opening interior of its vertical side wall and surrounded by said wall, means for connecting said drip cup to said oil fount and separating the same therefrom by a revoluble movement, and a vertical wick moving shaft which extends through said vertical passage of said drip cup, and through the body of said oil fount, and has its lower end accessible in said passage of said drip cup at the lower end of said oil fount, substantially as herein specified.

5. The improved lamp or lantern, constructed with a frame having a base or stand, a vertical pipe or tube 4 provided with screw-threads and connected at its upper end to said base or stand, so that its lower end will be free, an oil fount 5 provided at its lower end with a cylindrical reduced-portion, a vertical screw-threaded flange 6 having its upper end secured to said fount, so that its lower end will be free, said flange surrounding said reduced portion of the fount, so that an annular space is formed between said reduced portion and said flange, and a drip cup 7 in the form of an annular trough having concentric outer and inner walls, the upper edges of which are free and the lower edge of which is attached to the bottom 10 of said cup, so that the upper end of said cup is open and its lower end closed, said inner and outer concentric walls of said drip cup having screw-threaded portions 8 and 9 respectively, which are adapted to engage said screw-threaded flange 6 and said pipe or tube 4 respectively, said inner vertical wall of said drip cup being located in the annular space between it and the reduced portion of said oil fount, substantially as herein specified.

In testimony whereof I affix my signature in presence of two witnesses.

LOUIS W. SCHEFERS.

Witnesses:
C. K. JONES,
C. F. KELLER.