

(No Model.)

3 Sheets—Sheet 1.

J. KIRBY, Jr.
LAMP.

No. 483,155.

Patented Sept. 27, 1892.

Fig 1.

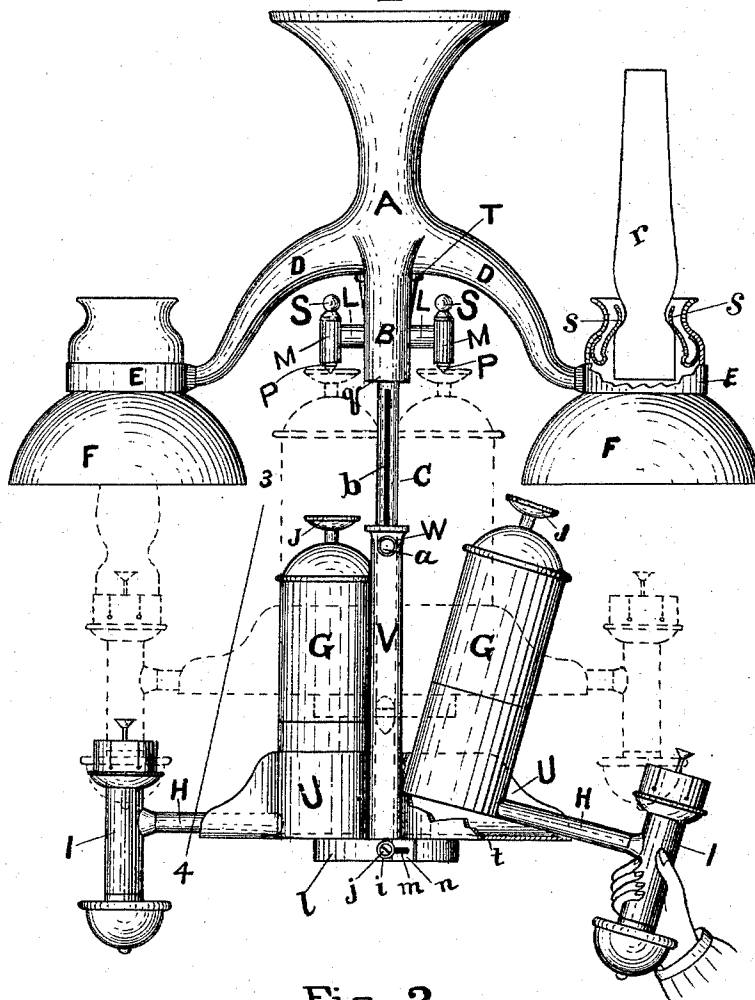
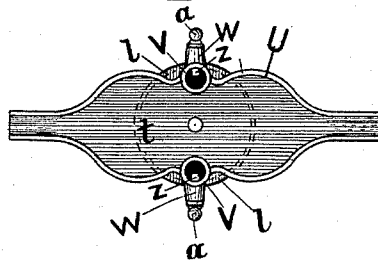


Fig 2.



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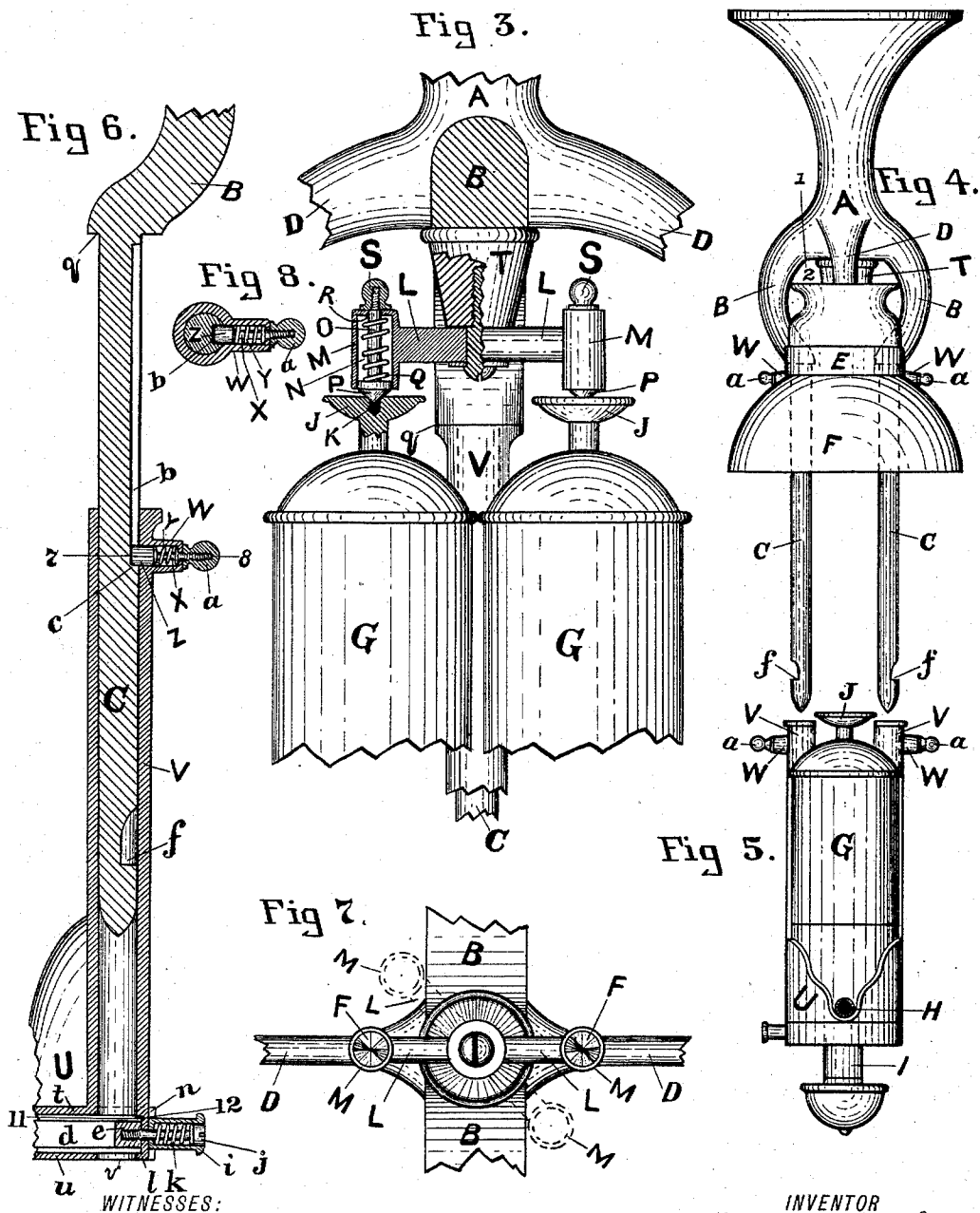
INVENTOR

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Fig 9.

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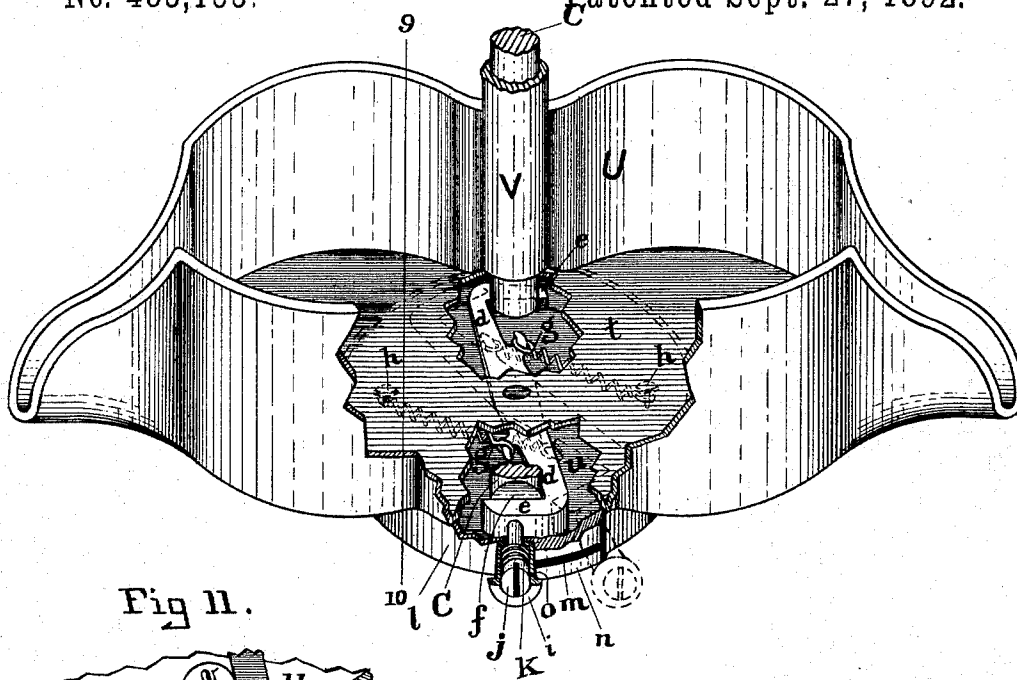
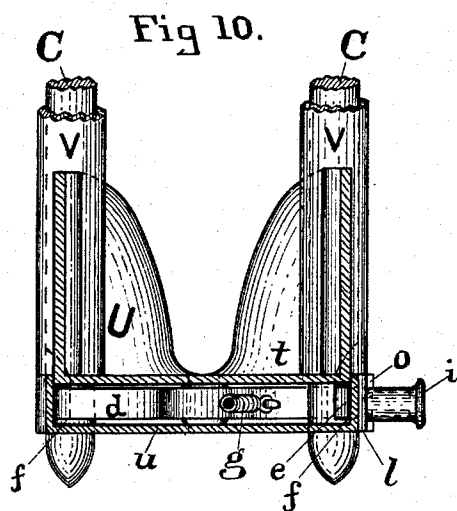
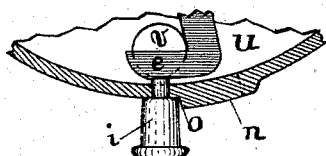


Fig 11.



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UNITED STATES PATENT OFFICE.

JOHN KIRBY, JR., OF DAYTON, OHIO, ASSIGNOR TO THE DAYTON MANUFACTURING COMPANY, OF SAME PLACE.

LAMP.

SPECIFICATION forming part of Letters Patent No. 483,155, dated September 27, 1892.

Application filed June 27, 1891. Serial No. 397,678. (No model.)

To all whom it may concern:

Be it known that I, JOHN KIRBY, Jr., a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Lamps; and I do hereby declare that the following is a full, clear, and exact description of the invention.

My invention relates to lamps such as are suspended from the roofs of railroad-cars, steamboats, and other similar places, said lamps being composed in part of a central supporting-frame or hanger carrying shade-holders for supporting shades above the burners and a holder for carrying oil-reservoirs.

The invention consists, chiefly, in an improved manner of attaching the reservoirs to the supporting-frame and means for steadying the same at their tops, whereby rattling of the parts is prevented, and in certain other features, as will be hereinafter fully described with reference to the accompanying drawings, in which—

Figure 1 is a side elevation of a lamp embodying my improvements, showing the reservoir-holder in a lowered position and partly in section, a hand in the act of removing one of the reservoirs therefrom, and the lamp-chimney held up out of the way by springs arranged within the shade-holder, the normal or elevated positions of the reservoirs being shown by dotted lines. Fig. 2 is a top view of the reservoir-holder removed from the supporting-frame. Fig. 3 is an enlarged side view of the upper portion of the reservoirs, showing a part of the shade-holding arms and my improved manner of steadying the reservoirs at the top, the latter being shown partly in section and the front dependent hanger being cut away at the line 1 2 of Fig. 4. Fig. 4 is an end elevation of the supporting-frame. Fig. 5 is an end view of the reservoir-holder and reservoirs through line 3 4 of Fig. 1. Fig. 6 is an enlarged central vertical section of one of the dependent rods of the supporting-frame, showing one of the sleeves of the reservoir-holder and the manner in which the latter is secured to the lamp-frame in a lowered position. Fig. 7 is an enlarged inverted plan of the device for steadying the reservoirs at the top, the dotted lines representing the same swung out of its normal position to allow the reservoirs to be more readily removed from

the holder when it is desired to do so without lowering the same. Fig. 8 is a cross-section through line 7 8 of Fig. 6. Fig. 9 is an enlarged broken perspective view of the reservoir-holder, showing the operation of the mechanism for locking the same securely to the dependent rods of the lamp-frame, the position of the locking-bar during the operation of removing the holder being shown by dotted lines. Fig. 10 is a cross-section through line 9 10 of Fig. 9. Fig. 11 is a plan view of a portion of the lock-case and locking mechanism, taken below line 11 12 of Fig. 6.

Similar letters of reference indicate corresponding parts in all the figures.

A represents the lamp hanger or frame, composed of a bifurcated supporting-hanger provided with an enlarged base or rigid attachment to a car-ceiling or other support, and having branches B, which carry dependent rods C and shade-holding arms D, the latter having shade-holders E attached to their outer ends, to which shades F may be secured by any of the well-known means.

G represents oil-reservoirs of the common student-lamp type, to which are attached arms or branches H, carrying burners I. The tops of said reservoirs are provided with knobs J, having recesses K.

L is a horizontally-arranged bar carrying at its outer ends heads or swells M, having recesses or chambers N, within which are movable bolts or pins O with enlarged lower tapered ends P, forming bearings for the lower ends of spiral springs Q, the upper ends of which bear against the tops of the chambers. An aperture R is pierced through the latter to allow bolt O to move freely, and a cap S is screwed or otherwise secured to the upper end of the latter to prevent its displacement. The bar L is preferably pivoted to a downwardly-extending portion T of the supporting-hanger, as more clearly shown in Fig. 3, and its function will presently appear.

U is a reservoir-holder, having a horizontal bottom plate and an upright rim u' , the holder being so shaped as to form a plurality of basket-like receptacles U' , each adapted to contain a single reservoir, and each having a lateral channel u'' formed in it, in which rests the burner-carrying arm attached to the reservoir. The said holder is provided with upwardly-extending hollow sleeves V, which

slide vertically on the rods C, and which are securely locked to the frame in the elevated position shown by dotted lines in Fig. 1 by means hereinafter described. These sleeves
 5 are provided at or near their upper ends with chambered projections W, carrying movable bolts X, around which are coiled springs Y, the ends of which bear against the heads Z, of the bolts X and bottoms of the chambers,
 10 the outer ends of the projections being pierced to permit the shank of the bolt to pass and receive knobs a, which knobs are screwed or otherwise secured to the outer ends of the bolts and prevent the springs from pressing
 15 the latter too far inward, and for use in withdrawing the same when it is desired to remove the holder from the dependent rods of the lamp-frame. The heads Z of the bolts X project a suitable distance out of the cham-
 20 bers toward the center of the sleeves and enter grooves b, formed in the dependent rods. Thus it will be seen that by taking hold of knobs a the heads of bolts X can be drawn back into the chambers, and when in this
 25 position sleeves V can be engaged with dependent rods C and holder U pushed upward into the position shown by dotted lines in Fig. 1. The hold on knobs a being released, the heads Z of bolts X will engage grooves b
 30 and prevent the holder being removed until the bolts are again withdrawn, the function of the latter being to permit the holder to be lowered a sufficient distance on the dependent rods to allow a liberal amount of room for
 35 the removal of reservoirs G from holder U. The heads Z of the bolts X being free to slide in the grooves rest on shoulders c, and thus form fastenings or stops for the holder when in a lowered position, as seen in Figs. 1
 40 and 6, and the latter is prevented thereby from separating from the lamp-frame until the bolts are withdrawn.

The holder U is locked to the lamp-frame in the position shown by dotted lines in Fig. 1 by means of a locking-bar d, preferably pivoted to the upper and lower plates t u of the lock-case l and provided with hooks or pro-
 45 jections e, which engage with notches f, formed in and in close proximity to the lower ends of the dependent rods C, and to cause said hooks to automatically engage with the notches spiral springs g are employed, one end of each being secured to the locking-bar and the opposite ends to posts h, as seen in Fig. 9.
 50 The locking-bar is turned so as to disengage its projections e from the notched rods C by means of a movable knob or handle i. This knob is chambered to admit a screw j, around
 55 which latter is coiled a spiral spring k, that forces said knob against the rim of the lock-case. One end of this spring bears against the head of the screw and the opposite end against the bottom of the chamber. The screw
 60 is preferably tapped into one of the projections e of the locking-bar, as seen in Fig. 6. This screw or stem is movable in a horizontal slot m of a projection or raised portion n of

the lock-case, said projection forming a shoulder o, as seen in Fig. 11, behind which knob
 70 i is forced by the spring k, which prevents movement of the screw or stem in the slot until the knob is drawn back a sufficient distance to clear the shoulder o, when the stem can be moved to one side, thereby rotating
 75 the locking-bar, with its projections e, until the latter clear the notches f, when holder U can be lowered and the reservoirs removed in the manner shown in Fig. 1, or, if preferred, holder U and reservoirs G can all be removed
 80 together by releasing bolts X, as previously described. It is to be understood, however, that the reservoirs can be removed from the holder without lowering the latter by turning bar L to the position shown by dotted lines in Fig. 7; but the danger of breaking the
 85 shades during the operation is greatly lessened and the reservoirs removed with less difficulty if the holder be lowered.

The operation of the within-described mechanism is as follows: The reservoirs are placed
 90 in the holder, bolts X withdrawn, and sleeves V made to engage dependent rods C, when the whole is pushed up to the position more clearly shown in Fig. 3. The upper ends of the hollow sleeves coming in contact with shoulder
 95 g of the hanger or frame prevents their further upward movement, and when in this position the heads P of bolts O engage with the recesses K, thus connecting the reservoirs at their tops in such manner as to prevent rattling of the several parts. To remove the res-
 100 ervoirs, the chimneys r are preferably pushed up through the shade holders or domes until chimney-steadying springs s engage their contracted necks, as shown in Fig. 1. Knob i is
 105 then drawn out and stem j turned until projections e clear notches f, when the holder can be lowered and the reservoirs removed, as before described. The dependent rods are pointed
 110 at their lower ends to admit of easy engagement with the hollow sleeve and pass entirely through the sleeves and through openings v in the plate u of the lock-case.

The foregoing is a description of the preferred construction of my lamp and its operation; but to those familiar with the art to which my invention relates it will be clear that the construction herein described can be departed from in various ways and still be within the scope of the invention.
 120

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a lamp, a hanger or frame carrying shade-holders and having a dependent reservoir-holder support, in combination with a horizontal reservoir-holder having a plurality of basket-like receptacles, said holder being attached to said support, and two or more reservoirs detachably held in the receptacles
 125 in said holder, said reservoirs having arms or branches which carry burners, substantially as described.
 130

2. In a lamp, a hanger or frame carrying

shade-holders and having a dependent reservoir-holder support, in combination with a horizontal reservoir-holder having a plurality of basket-like receptacles, said holder being attached to said support, reservoirs detachably held in the receptacles in said holder, and means for steadying said reservoirs at their tops, the reservoirs having arms or branches which carry burners, substantially as described.

3. In a lamp, a hanger or frame carrying shade-holders and having a dependent reservoir-holder support, in combination with a horizontal reservoir-holder having a plurality of basket-like receptacles, said holder provided with means for coupling with the support in such a manner as to be movable thereon, and two or more reservoirs carried by said holder, the reservoirs having arms or branches which carry burners, substantially as described.

4. In a lamp, a hanger or frame carrying shade-holders and having a dependent reservoir-holder support, in combination with a horizontal reservoir-holder having a plurality of basket-like receptacles, said holder provided with means for coupling with the support in such a manner as to be movable thereon, reservoirs carried by said holder, and means for steadying said reservoirs at their tops, the reservoirs having arms or branches which carry burners, substantially as described.

5. In a lamp, a hanger or frame carrying shade-holders and having a dependent reservoir-holder support, in combination with a horizontal reservoir-holder having a plurality of basket-like receptacles, said holder provided with means for coupling with said dependent support in such a manner as to be movable thereon, and reservoirs carried by and detachable from said holder, the reservoirs having arms or branches which carry burners, substantially as described.

6. In a lamp, the combination, with a hanger or frame carrying shade-holders, of a horizontal reservoir-holder having a plurality of basket-like receptacles, said holder provided with means for coupling with said hanger or frame in such a manner as to be movable thereon, reservoirs carried by said holder, and means for steadying said reservoirs at their tops, the reservoirs having arms or branches which carry burners, substantially as described.

7. In a lamp, the combination, with a hanger or frame carrying shade-holders, of a reservoir-holder provided with means for coupling with said hanger or frame in such a manner as to be movable thereon, reservoirs carried by and detachable from said holder, and means for steadying said reservoirs at their tops, the reservoirs having arms or branches which carry burners, substantially as described.

8. In a lamp, the combination, with a

hanger or frame carrying shade-holders, of a reservoir-holder provided with means for coupling with said hanger or frame in such a manner as to be downwardly detachable therefrom, two or more reservoirs carried by said holder, and means for steadying said reservoirs at their tops, the reservoirs having arms or branches which carry burners, substantially as described.

9. In a lamp, the combination, with a hanger or frame carrying shade-holders and having a dependent reservoir-holder support, of a reservoir-holder provided with spring-actuated devices adapted to engage with the notches in the support, whereby the holder may be coupled with the support at different elevations and in a downwardly-detachable manner, and two or more reservoirs carried by said holder and having arms or branches which carry burners, substantially as described.

10. In a lamp, a hanger or frame carrying shade-holders and having a dependent reservoir-holder support, in combination with a horizontal reservoir-holder having a plurality of channeled basket-like receptacles, said holder being attached to said support, and two or more reservoirs detachably held in the reservoir-holder, said reservoirs having arms or branches resting in the channels in the receivers and carrying burners, substantially as described.

11. In a lamp, the combination, with a hanger or frame adapted to be supported from above and carrying shade-holders, of a reservoir-holder supported by said hanger or frame, reservoirs having recessed knobs and provided with arms or branches carrying burners, a horizontal bar carried by the hanger or frame, and spring-actuated bolts carried by said bar, said bolts being arranged to engage with the recesses in the reservoirs, substantially as described, and for the purpose set forth.

12. In a lamp, the combination, with a hanger or frame adapted to be supported from above and carrying shade-holders above the burners, and a dependent branched support having the grooves *b*, shoulders *c*, and notches *f*, of a reservoir-holder having sleeves *V*, adapted to fit over the branches of said support, a spring-actuated bolt in each sleeve for engagement with the grooves in the support, a locking-bar *d* for engagement with the notches in the support, and two or more reservoirs detachably held in said holder, said reservoirs having arms or branches which carry burners.

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

JOHN KIRBY, JR.

Witnesses:

E. B. LEHMAN,
GUY FULTON.