

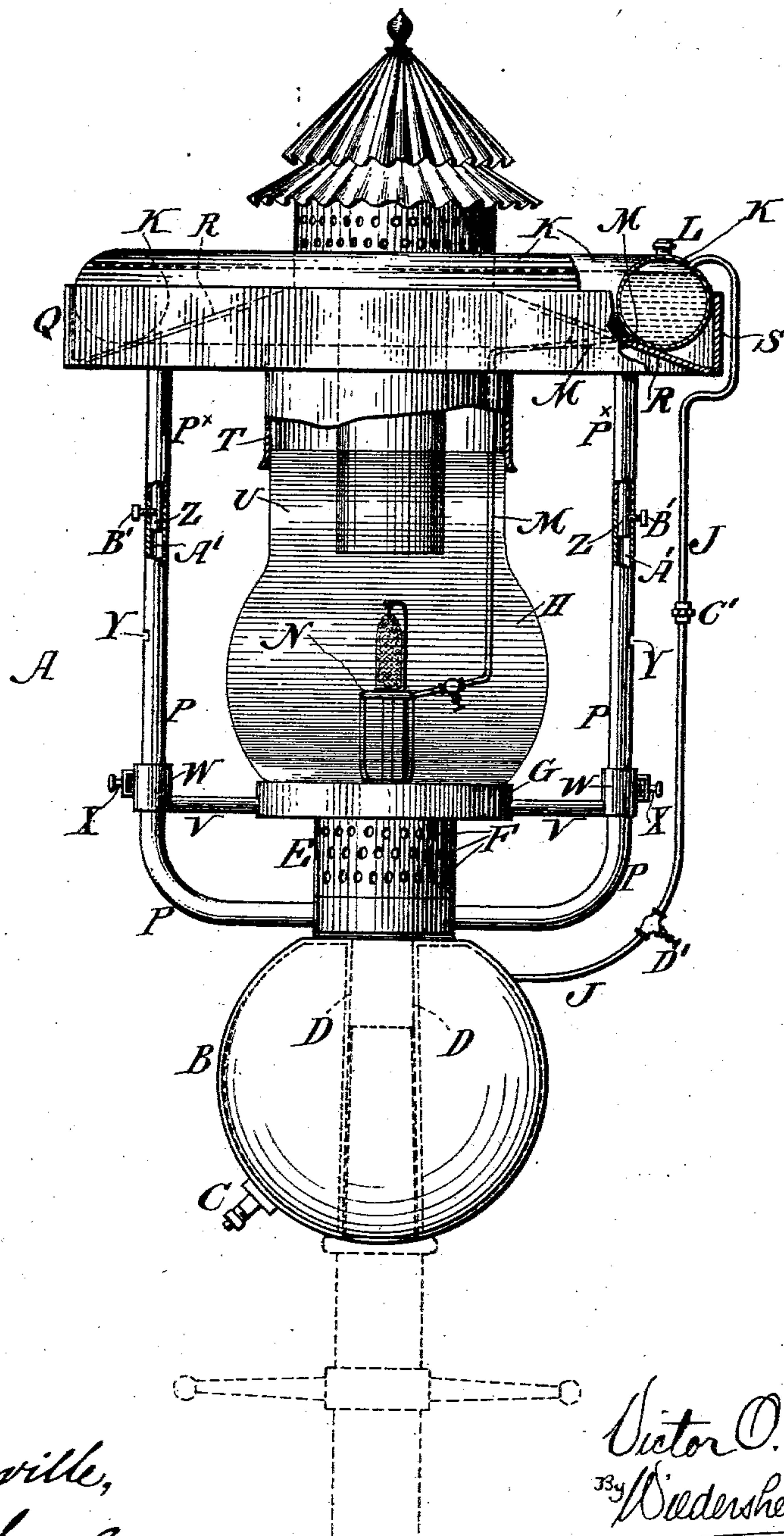
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Patented July 25, 1899.

V. O. HAMMON.
STREET LAMP OR LANTERN.

(Application filed Mar. 15, 1899.)

(No Model.)



Witnesses

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STREET LAMP OR LANTERN.

SPECIFICATION forming part of Letters Patent No. 629,353, dated July 25, 1899.

Application filed March 15, 1899. Serial No. 709,151. (No model.)

To all whom it may concern:

Be it known that I, VICTOR O. HAMMON, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Street Lamps or Lanterns, which improvement is fully set forth in the following specification and accompanying drawing.

In the system of hydrocarbon-lighting to which the present invention appertains a pressure is required in the tank containing the fuel in order that a proper injection may be had at the burner. It has heretofore been the practice to have the fuel and compressed air contained in a single tank in the base of the lamp-post, in which case a high pressure was necessary to force the fuel upwardly; but it has been found that a considerable pressure was expended in this operation, and since it was important to operate with as low a pressure as possible it is evident that much has been accomplished when the necessity for this extra force is eliminated. Having the tank containing fuel and compressed air above the lamp, it is apparent that this result would be obtained, and we would also have the gravity help; but since very much more capacity for compressed air is required than for fuel it is obvious that should one gallon of hydrocarbon be required for a certain lighting period the combined air and fuel capacity would necessitate receptacles on the top of the lantern of such dimensions as would render them unsightly, if not impractical. It is therefore apparent that a device by which we could get the results of such an arrangement and overcome the obvious objection would possess great advantages.

In carrying out my invention I place a receptacle large enough to contain the necessary amount of fuel adjacent the roof of the lantern-hood and connect it by a tube with another receptacle containing compressed air, this latter receptacle to be placed in proximity to the lantern or in or around the post, wherever most convenient or slightly, the arrangement of the air-tank in the form of a sphere at or near the base of the lantern and around its shank being found in practice to be an effective construction.

My invention consists in the combination

of a lower reservoir for the reception of compressed air upon which a cylinder or shell is placed, the latter being provided with perforations for the ingress of air and being adapted to support the hood or upper portion of the lamp or lantern, upon which is supported an annular or other shaped tank or reservoir for the reception of hydrocarbon, the upper portion of said hydrocarbon-reservoir having a conduit leading thereto from the compressed-air reservoir, and said hydrocarbon-reservoir having a valved conduit leading therefrom to said burner, it being apparent that a street lamp or lantern equipped as described can be charged with a certain predetermined quantity of gasoline or hydrocarbon and compressed air, whereby the lamp can be set so as to burn a certain predetermined number of hours, and as soon as the supply of hydrocarbon is exhausted said lamp will thus be automatically extinguished.

It also consists of novel means for readily disconnecting the upper portion of the lamp and its adjuncts and of means for enabling the shade to be lifted for the purpose of lighting, inspection, or repairs.

It further consists of novel details of construction, all as will be hereinafter fully set forth, and particularly pointed out in the claims.

The figure represents a side elevation of a novel construction of street lamp or lantern embodying my invention.

Similar letters of reference indicate corresponding parts in the figure.

Referring to the drawing, A designates a street lamp or lantern, the same consisting of the lower reservoir or base B, which is provided with an inlet C for the introduction of compressed air and has a recess or socket D therein, whereby said compressed-air reservoir can be supported upon a lamp-post, if desired.

E designates a cylinder or shell which is supported upon the upper portion of the compressed-air reservoir, which is preferably flattened, said shell being provided with perforations F and having an upper portion or plate G, upon which the globe H is adapted to be secured.

J designates a pipe leading from the com-

pressed-air reservoir B to the hydrocarbon-reservoir K, which is provided with a closure L for the introduction of the hydrocarbon thereinto, said reservoir K having a valved pipe M leading from the lower portion thereof to the burner N, which latter may be of any convenient construction and supported within the globe H in any suitable manner.

P designates arms or tubes leading upwardly from the shell E to the posts P^x, which support the lantern-hood Q, between the inner inclined portion R of which and the outer wall S the reservoir K is supported, said reservoir being of annular or other desired contour.

T designates an open-ended flue located above the burner and attached to the hood Q or other suitable support, said flue receiving the end U of the chimney H and adapted to permit the latter to be raised thereinto.

The portion G, upon which the globe H is supported, has arms V extending therefrom to which are attached the sleeves W, which carry the spring-actuated pins X. When it is desired to light the burner, it is only necessary to raise the portion which supports the globe, the arms V, and their adjuncts until the pins X engage the recesses Y, whereupon the burner is readily accessible. It has been deemed unnecessary to describe or show in detail the construction of the spring-actuated pins X, since the same will be familiar to those skilled in the art.

The posts P^x depend from the lantern-hood and are preferably hollow and have secured therein the rods Z, which latter enter the seat or sockets A' and are held in position by the set-screws B' or similar devices. The pipe J is provided with a coupling C' and a valve D', which is usually dispensed with, it being understood that said valve is open during the operation of the device, whereby an equalization of pressure is attained between the hydrocarbon and compressed-air reservoirs, as has been explained. When it is desired to remove the hood or upper portion of the lantern, it is only necessary to uncouple the pipe J and loosen the set-screws B', whereupon the hood, posts P^x, flue T, and their adjuncts can be readily lifted, as is evident.

The operation is as follows: The reservoir B is filled with compressed air through the inlet C, and the reservoir K is also filled with hydrocarbon through the inlet L, the valve in the pipe M being closed when said reservoirs are being filled. It will be evident that upon proper manipulation of the valve in the pipe M the hydrocarbon under the pressure of gravity and compressed air will be conducted to the burner N, and by the means hereinafter described a lamp or lantern can be equipped so as to burn for a certain predetermined period, the apparatus thus being especially applicable for lighting plants of every description.

It will be apparent that the compressed-air reservoir B is utilized both to contain the

compressed air and to serve as a base for supporting the shell E and the globe H, thereby not detracting from the appearance of the lamp, and by providing the compressed-air reservoir with the socket D the same is adapted to be readily placed in position upon existing lamp-posts without necessitating any change in the connection thereof.

It will be evident that the construction above described is equally well adapted for use as a lantern or portable lamp, in which case the bottom of the reservoir B can be shaped, if desired, so as to afford a suitable base upon which the lamp or lantern can be set. The shell E is secured to the reservoir B in any suitable manner, a plate being interposed in practice between said shell and reservoir.

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

1. In a street lamp or lantern, a lower reservoir for the reception of compressed air located at or near the junction of the lamp and its support, an upper reservoir for the reception of hydrocarbon, a conduit common to said reservoirs, and an independent supply-pipe leading from said hydrocarbon-reservoir to a burner, the latter being suitably supported and inclosed below said hydrocarbon-reservoir.

2. The combination of a compressed-air reservoir, a shell or cylinder supported thereupon and provided with perforations for the ingress of air, the upper portion of said shell being adapted to support a lamp-globe, a burner contained within said lamp-globe, a pipe leading from said compressed-air reservoir to a reservoir for the reception of hydrocarbon located above said burner and a pipe leading from the latter to said hydrocarbon-reservoir.

3. In a street lamp or lantern, a compressed-air reservoir adapted to serve as a base, an apertured shell or cylinder supported upon said compressed-air reservoir, a globe supported above said shell, a burner contained within said globe, a reservoir for the reception of hydrocarbon located above said burner, a pipe leading from said compressed-air reservoir to said hydrocarbon-reservoir and a valved pipe leading from said hydrocarbon-reservoir to said burner.

4. In a street lamp or lantern, a compressed-air reservoir, serving as a base, a perforated shell supported thereupon and sustaining a globe, a burner, a hood suitably supported above said burner, a hydrocarbon-reservoir supported upon said hood, a pipe leading from said compressed-air reservoir to said hydrocarbon-reservoir and a pipe leading from the latter to said burner.

5. In a lamp or lantern, a hood at the upper portion thereof having an inner inclined wall and an upwardly-extending outer wall, an annular reservoir for hydrocarbon located in the space between said walls; a flue depend-

ing from said hood, a globe having its upper end engaged by said flue, a lower reservoir for the reception of compressed air said latter reservoir being located at or near the junction of said lamp or lantern and its support, a conduit leading from the latter reservoir to said hydrocarbon-reservoir, and a valved pipe leading from the latter to said burner.

6. The combination of a compressed-air reservoir, a perforated shell supported thereon, upwardly-extending arms leading from said shell, a plate supported on the latter and having arms projecting therefrom, and provided with sleeves movable on said arms, catches or locking devices common to said sleeves and arms, a burner, a hydrocarbon-reservoir suitably supported above said burner, and a pipe common to said reservoirs and burner.

7. The combination of a hydrocarbon-reservoir, a burner, a hood located above the latter and supporting said reservoir, posts depending from said hood, a compressed-air reservoir, a perforated shell supported thereupon, a plate carried by said shell, arms projecting from said plate, the latter supporting a globe, locking devices for supporting said arms and globe in an elevated position, means for supporting said posts, and a conduit leading from said hydrocarbon-reservoir to a burner.

8. The combination of a compressed-air reservoir, a shell or cylinder supported thereon,

the upper portion of the latter being adapted to support a lamp-globe, a burner contained in said lamp-globe, a pipe leading from said compressed-air reservoir to a reservoir for the reception of hydrocarbon supported above said burner, and a pipe leading from the latter to said hydrocarbon-reservoir.

9. The combination of a lamp-post or support, a lamp or lantern, a compressed-air reservoir intermediate said lantern and support, an upper reservoir suitably supported for the reception of hydrocarbon, a conduit common to said reservoirs and an independent pipe leading from said hydrocarbon-reservoir to a burner, the latter being located below said hydrocarbon-reservoir.

10. The combination of a compressed-air reservoir, a lamp or lantern supported thereupon, a hydrocarbon-reservoir suitably supported, a conduit common to said reservoirs, a plate suitably supported, arms projecting from said plate, the latter supporting a globe, locking devices for supporting said arms and globe in elevated position, and a conduit leading from said hydrocarbon-reservoir to a burner, the latter being located below said hydrocarbon-reservoir.

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