(No Model.)

A. P. STORRS.

BOULEVARD LAMP.

No. 574,640. Patented Jan. 5, 1897.

Fig. 1.

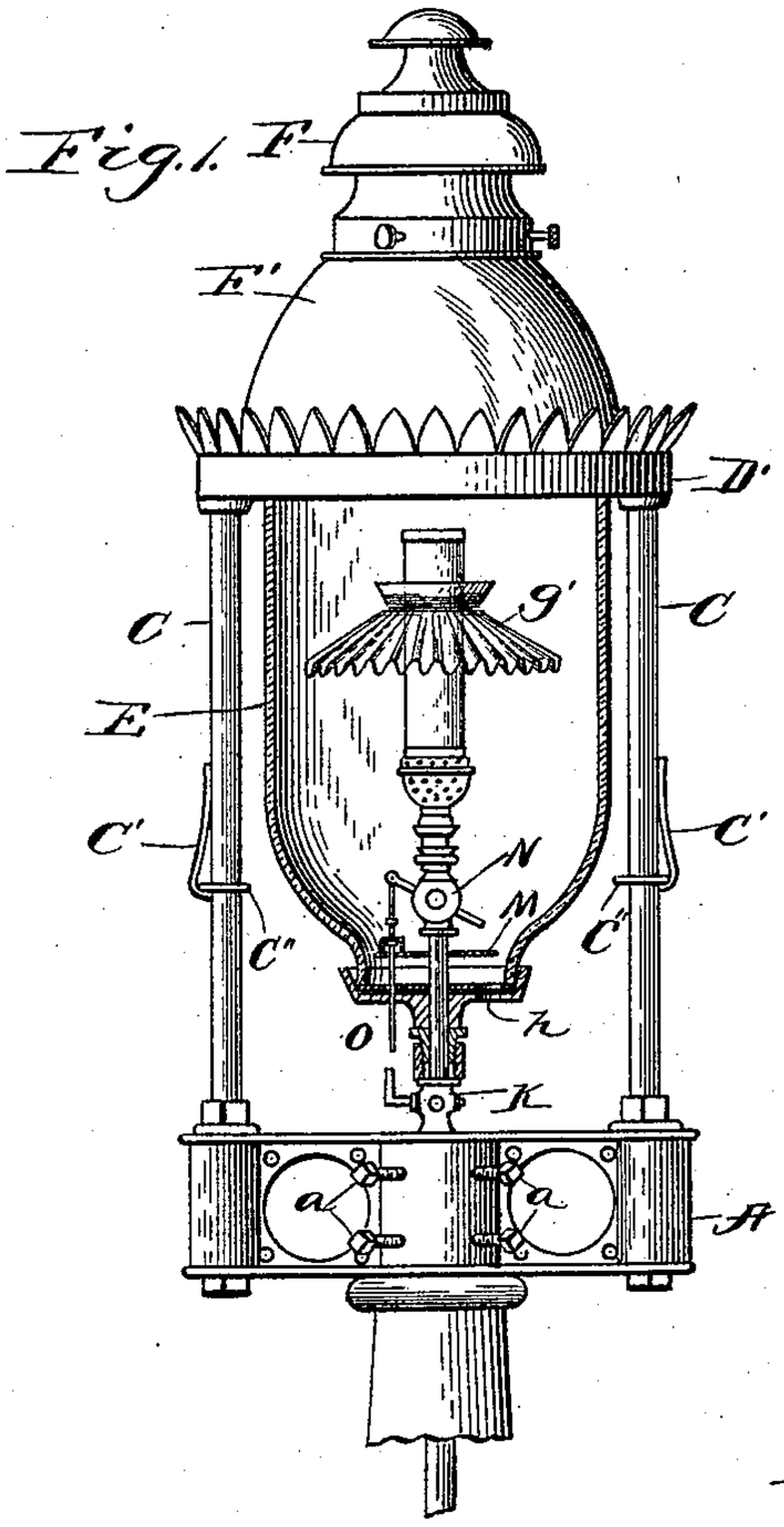


Fig. 2.

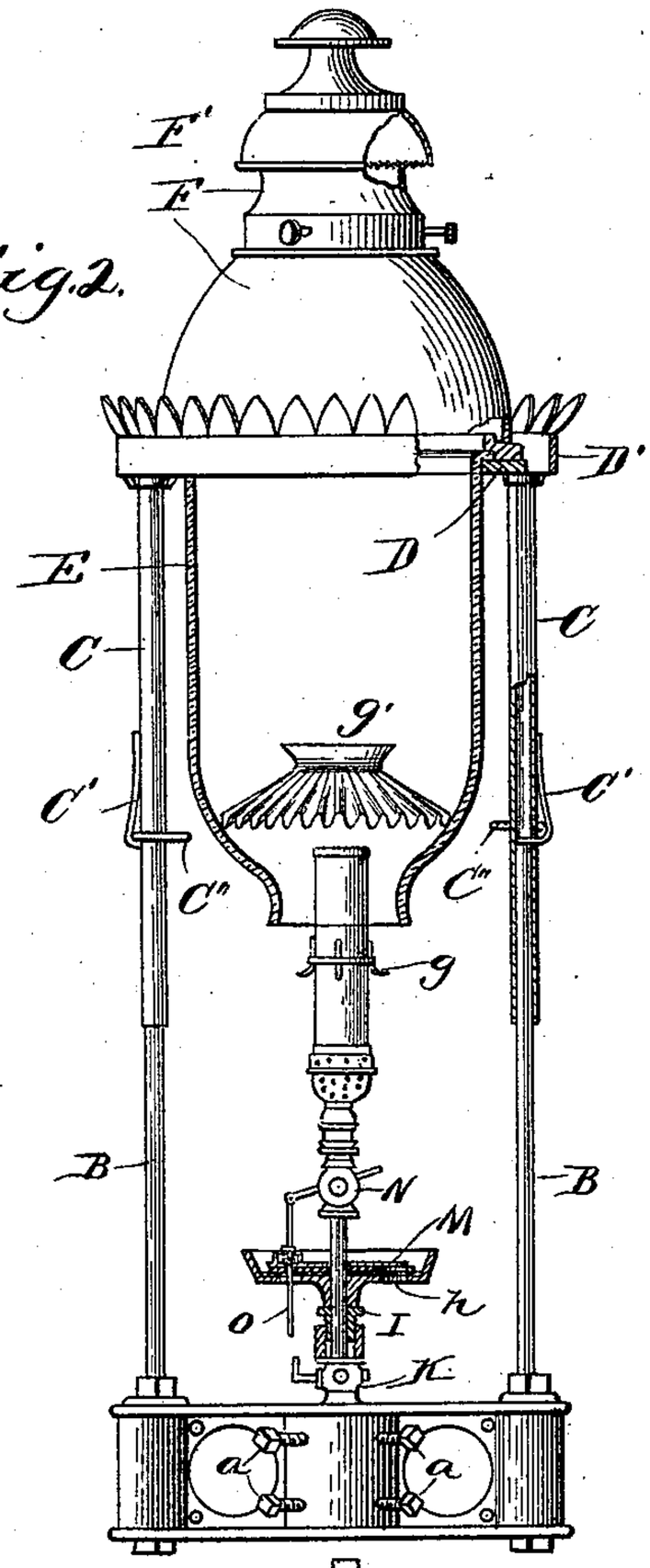
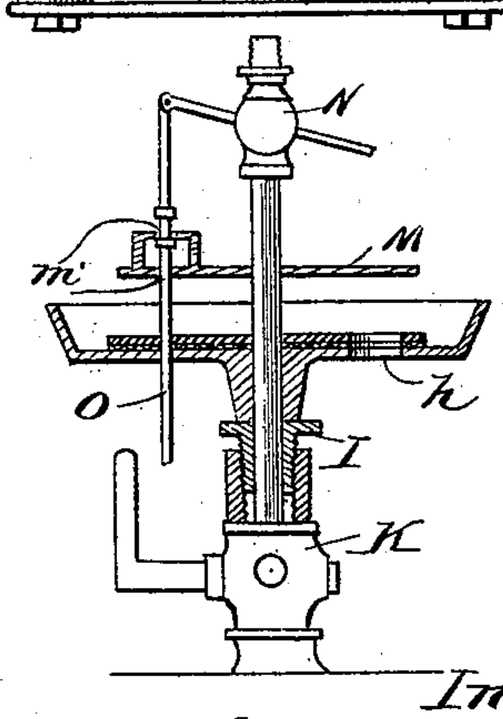


Fig. 3.



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UNITED STATES PATENT OFFICE.

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BOULEVARD-LAMP.

SPECIFICATION forming part of Letters Patent No. 574,640, dated January 5, 1897.

Application filed December 12, 1895. Serial No. 571,905. (No model.)

To all whom it may concern:

Be it known that I, AARON P. STORRS, of Owego, in the county of Tioga, State of New York, have invented certain new and useful Improvements in Boulevard-Lamps; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

This invention relates to improvements in lamps such as are particularly adapted for use in the open air and exposed to the elements, the objects of the invention being to provide a structure wherein that class of burners known as the "Welsbach" burners may be employed in connection with a by-pass valve without danger of having the light extinguished when turned down, and, further, to provide a structure wherein the burner and its connected parts may be reached for inspection or repairs with the utmost facility and without danger of breaking or disturbing the relative position of the globe or globes and the supporting-frame.

The invention consists in certain novel details of construction and combinations and arrangements of parts, all as will be now described, and pointed out in the appended claims.

Referring to the accompanying drawings, Figure 1 is a side elevation, partly in section, of what is known as a "boulevard-lamp" embodying my present improvements. Fig. 2 is a similar view with the globe and its carrying-frame elevated to permit of the inspection or repair of the burner; and Fig. 3 is a detail sectional view showing the by-pass valve and the air-valve connected therewith, together with the mechanism for securing the adjustment of the globe-seat on a lamp-post or similar structure.

Like letters of reference in the several figures indicate the same parts.

In the illustrated form of the lamp in connection with which my present invention is shown I have adopted a construction similar in many respects to the ordinary boulevard-lamp, which is adapted to be secured to the top of the lamp-post or other support, and while I have illustrated this form of lamp it will be understood that the invention may be applied to any ordinary or preferred form of lamp, and consequently I do not wish to be limited in this respect.

In the drawings, the letter A indicates the base of the lamp-frame, which is adapted to be secured to the top of the post or support by set-screws *a*, four of which are arranged on each side of the base in order that the base may be set and held rigidly in a true horizontal plane on a support of any kind and even should the end of the support or post be irregular or out of plumb. At each side of the base two rigid vertical posts B B, Fig. 2, are secured, and sliding vertically on these posts are two sleeves C, carrying at their upper ends the frame D, which supports the depending globe E and the dome-shaped globe and lamp-top F F′, which latter parts are of the usual or any preferred construction.

Surrounding the globe-supporting frame D is an ornamental inclosing-ring or wind-brake D′ for preventing the direct impact of the wind against the joint between the globes; and in order that this ring or wind-brake D may not accumulate snow or dirt it is preferably set away from the globe-support D a short distance or a sufficient distance to allow dirt and accumulations to drop straight through, being supported in this position by lugs or projections on the support D.

From this description it will be seen that the whole upper portion of the lamp is separate from the bottom portion and may be raised to the position shown in Fig. 2, and in order to hold it in its elevated position I provide on each of the tubes C a spring-catch C′, adapted to spring in over the end of the uprights B.

The spring-catches C′ are provided with a thumb-piece C″, extending around to the inside of the tubes in position to be conveniently pressed upon by the thumbs of a person who grasps the tubes in his hand to raise or lower the globe.

In the preferred construction of lamp the chimney of the burner is provided with a shaft-support *g*, and a shade *g′*, adapted to rest thereon, is lifted off of the chimney by the globe when it is raised, and when lowered the globe allows the shade to come to rest on its support. In its lowered position the lower edge or bottom of the globe rests on or makes contact with a subplatform or receiver, which

latter is in turn supported on an adjustable collar I, which is made adjustable in order that the receiver or platform may be set up into contact with the bottom edge of the globe regardless of the height of the gas-pipe in the particular post or support to which the lamp is applied. The height of this gas-pipe, which usually terminates in a stop-cock K, varies in different lamp posts or supports, and for reasons which will now appear it is desirable that there should not be an air-space left between the edge of the globe and the receiver or platform, and hence the adjustable collar, it will be seen, forms a ready means for securing the proper adjustment of the parts to adapt the lamp for application to any ordinary post.

The receiver or platform is perforated or is provided with a series of apertures *h*, properly screened to prevent the entry of insects, and, if desired, in order to form a good seat it may have a rubber pad or gasket on its upper face, which besides affording a secure seat and buffer for the globe will also form a good seat for the air-valve M.

In the operation of these lights, particularly lights of the Welsbach type, it is desirable to overcome the necessity of lighting the lights each night, and to do this it is customary to provide what is known as a "by-pass" valve in the gas-pipe, which valve may be turned to allow a full head of gas on the one hand or, on the other hand, may be turned to allow only sufficient gas to escape to maintain a very small flame in the burner, and this small flame serves as the means for securing the ignition of the full flow of gas when the by-pass valve is turned in the proper direction. In the practical use of lamps employing this by-pass valve it is found that the very small flame which is maintained all the while during the day is liable to be extinguished by the wind, and this is particularly so where the Welsbach burners are employed. In order now to overcome this difficulty, as well as to prevent the wear and tear on the mantles of the Welsbach burners incident to repeatedly lighting the same, I provide the globe with an air-supply valve M, before referred to, and I connect this valve and the by-pass valve for simultaneous operation; that is to say, when the by-pass valve is opened to give a full head of gas the air-valve will be opened by the same movement to allow the necessary quantity of air to enter to secure the proper combustion in the globe, and when the by-pass valve is closed the air-valve will be simultaneously closed to prevent the minute flame from being extinguished by the air-currents, it being found in practice that a sufficient quantity of air remains in the globe or enters through the screened opening at the top of the lamp to maintain the combustion of the minute flame.

In the device illustrated I have shown a by-pass valve N of ordinary construction, and to this by-pass valve is connected an operating-rod O, extending down through the receiver or platform and adjustably connected to the air-valve M, so as to permit of said valve being properly seated under all circumstances.

The air-valve M is preferably connected with the rod by widely-separated bearings *m'*, so as to maintain said valve in a horizontal position, and in the preferred construction the by-pass valve is located in position to lie within the globe when the globe is lowered, although such arrangement is not at all essential, as it is obvious that the by-pass valve may be located at any convenient point, it only being essential that the air-valve and by-pass valve should be connected for simultaneous operation in order, first, that there may be no liability of the minute flame being extinguished at the moment the by-pass valve is turned off, and, secondly, in order that the air-valve will be opened with certainty when the by-pass valve is turned on, as otherwise the attendant would be liable to leave the air-valve closed, and this would result in the extinguishing of the light as soon as the oxygen in the globe had burned out.

The whole device, it will be seen, is exceedingly simple, inexpensive to manufacture, and may be maintained in perfect order at very slight expense. The globes, being closed against the entry of dirt and insects at all times, will not require cleaning on the inside save at long intervals, and when this becomes necessary or the burner or the other parts need attention the globes and their carrying-frame may be thrown up to the position shown in Fig. 2, when all the parts are exposed and accessible; but should it be necessary the globes and their frame may be entirely removed by simply slipping the tubes off of the rods, as will be readily understood.

Having thus described my invention, what I claim as new is—

1. In a lamp, the combination with the globe and burner of a by-pass valve for reducing the flow of illuminant to the burner and an air-valve for admitting air to the globe connected with said by-pass valve for simultaneous operation, whereby when the by-pass valve is turned on, the air-valve will be opened for the admission of air to the globe to support combustion at the burner; substantially as described.

2. In a lamp, the combination with the globe, and the platform or receiver for closing the lower end of the globe having air-inlet passages therein, of the burner and by-pass valve controlling the supply of illuminant to the burner and an air-valve connected with said by-pass valve for simultaneous operation for controlling the supply of air to the globe; substantially as described.

3. In a lamp, the combination with the globe having the screened openings at top and bottom and the burner within said globe, of a by-pass valve for controlling the flow of illuminant to the burner and an air-valve connected with said by-pass valve for simul-

taneous operation for controlling the flow of air through the screened aperture at the bottom of the globe; substantially as described.

4. In a lamp, the combination with the burner and the receiver or platform rigidly connected with said burner of the globe seating on and movable toward and from said platform, of a by-pass valve, an operating-rod for the by-pass valve operating through the receiver or platform and an air-valve connected with said rod and adapted to be operated thereby; substantially as described.

5. In a lamp, the combination with the globe and receiver or platform for sealing the lower end of the globe having air-openings therein of a by-pass valve and operating-rod therefor passing through the platform or receiver and an air-valve adjustably connected with said rod for closing the openings in said platform or receiver; substantially as described.

6. In a lamp the combination with the post or support carrying the burner and the globe-frame rigidly mounted upon said post or support with a globe depending from said frame, of the receiver or platform on which the globe sits having air-inlet openings therein and a screw-collar interposed between said receiver or platform and the post or support whereby the receiver or platform may be adjusted and fixed in position to seal the lower end of the globe; substantially as described.

7. In a lamp, the combination with the base and globe supporting frame with the globe depending therefrom of the vertical adjustable receiver or platform on which the globe seats having air-inlet openings therein, and by-pass valve for controlling the flow of illuminant and a rod connecting said by-pass valve and air-valve for simultaneous operation; substantially as described.

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