J. G. MINER.

Street-Lamps.

No. 140,062. Patented June 17. 1873.

Fig:1.

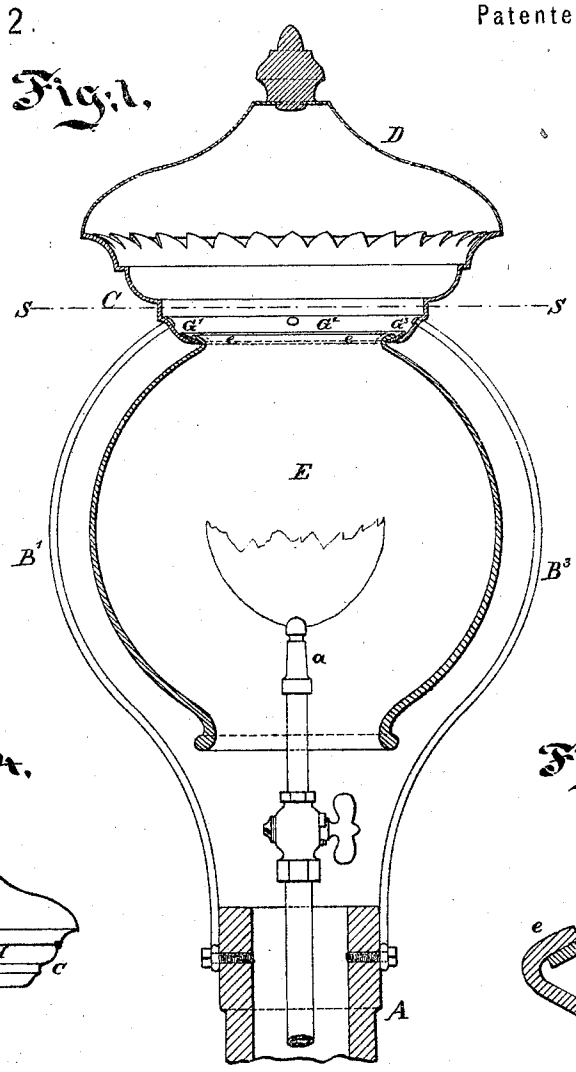


Fig:4.

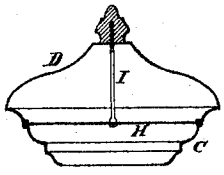


Fig:3.

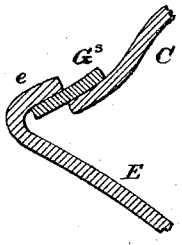
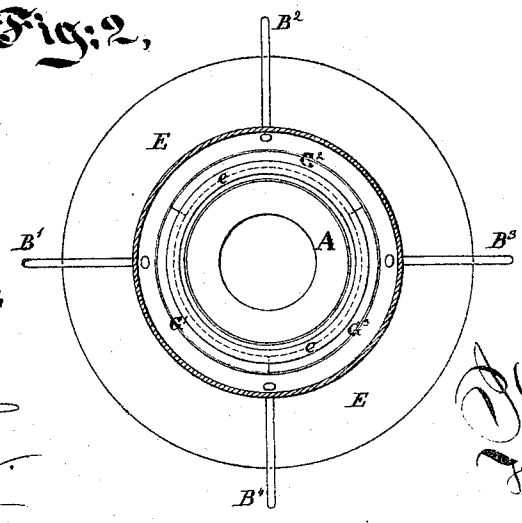


Fig:2.



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UNITED STATES PATENT OFFICE.

JACOB G. MINER, OF MORRISANIA, NEW YORK.

IMPROVEMENT IN STREET LAMPS.

Specification forming part of Letters Patent No. **140,062**, dated June 17, 1873; application filed July 30, 1872.

To all whom it may concern:

Be it known that I, JACOB G. MINER, of Morrisania, in the county of Westchester, and State of New York, have invented certain new and useful Improvements in Street Lamps, of which the following is a specification:

The general appearance of my present lamp somewhat resembles that described in a patent issued to me in 1866, but the construction allows a great variation in the form of what is there called the cylinder.

According to that patent the cylindrical glass may be of any form desired at the bottom, so long as it is smaller than the main body of the glass, but the top requires a flange which projects out beyond the fullest or largest parts below. In other words, it must be of such form that the body of the glass can be dropped down through a fixed ring or frame above, and will be hung on that frame by means of a projecting flange at the top. The construction set forth in that patent would not allow of a graceful swell or a spherical form of the glass.

My present invention allows the upper part to be contracted or the main body of the glass, to form a zone of a sphere. The glass is introduced by thrusting it upward from below, instead of dropping it through the frame from above.

The following is a description of what I consider the best means of carrying out the invention.

The accompanying drawings form a part of this specification.

Figure 1 is a central vertical section. Fig. 2 is a horizontal section on the line S S in Fig. 1. Fig. 3 is a vertical section of a portion on a larger scale; and Fig. 4 is a section of the top in a slightly modified form.

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

A is a lamp-post, and *a* the upper end of a gas-pipe provided with a suitable tip and cock, B^1 B^2, &c., are slender rods, extending up from the lamp-post to a fixed ring of cast-iron or other suitable material, C, which is surmounted by the top D adapted for ventilation, and defending the interior of the lamp from the weather. The top may be removed by lifting it upward and turning it on a hinge not represented. E is a globe or glass made open at the bottom sufficient to allow the free access of air, and also to admit the hand with a suitable cloth, brush or like article, for cleaning the interior of the glass occasionally. The top of the globe is of course open, as shown, to allow the free escape of the air and products of combustion into the space above, and is provided with a flange *e*, which extends out sufficiently to take hold of any object presented below, and to afford a reliable support for the glass. G^1 G^2 G^3 are segments of a ring narrower than the ring or frame C, and resting on its conical interior surface. The force of gravity tends to draw them inward and downward under the flange of the globe, but they can readily be pushed back by the fingers or other suitable means when it is desired to remove or insert the glass.

In the operation of my lamp, the glass remains permanently suspended by its flange *e*, resting on the inner or lower edges of the segments G^1 G^2 G^3, and when for any reason it is desirable to remove or exchange the glass, the hand or arm of the operator acts successively on the segments G^1 G^2 G^3, pushing them outward and upward, and soon liberates the globe and allows it to drop downward. On replacing the same globe, or introducing another glass, the hand is thrust up through it, and, the globe being placed in position, a repetition of the operations of acting successively on the segments G^1 G^2 G^3 pushes them outward and backward sufficiently to allow the flange to pass up. The fingers being again employed to draw the segments downwards in co-operating in this manner with the gravity of these parts, the glass is soon firmly locked, and will remain suspended for an indefinite period.

The yielding character of the supports by means of the segments G^1 G^2 G^3 allows for great variation in the sizes of the globes, and for any irregularities in their form, and also allows for any expansions and contractions due to changes of temperature or other causes. The ring C and top D may be cast together, or otherwise permanently secured together, if preferred. In such a case the segments G^1 G^2 G^3 may be thrust up by skillful handling from below, through the opening provided. In case the top D is lifted, the

segments G^1 G^2 G^3 may be dropped in from above.

One mode of construction which I believe will be preferable in practice when the hinge is not employed, is shown in Fig. 4, where H is a cross-bar, cast in one with the ring C, or fitting in internal lugs formed thereon near its upper edge; and I is a screw-bolt extending up therefrom to the top of the entire structure.

The ornamental knob on the extreme top of the lamp may be in such case a nut, turnable by the hand, and securing the parts together.

I propose to make the metal-work of the top highly reflective, either by plating with nickel or the like, or by painting or varnishing with a highly-reflective material.

I claim as my invention—

The flanged cylinder or globe E *e*, supported in the ring or frame C by means of the moveable segments G^1 G^2 G^3 all combined and arranged for joint operation, substantially as herein set forth.

In testimony whereof I have hereunto set my hand this 28th day of October, 1872, in the presence of two subscribing witnesses.

JACOB G. MINER.

Witnesses:

THOMAS S. STETSON,

ARNOLD HORMANN.