G. CUPPERS.

Street Lamp.

No. 107,884. Patented Oct. 4, 1870.

Fig: 1.

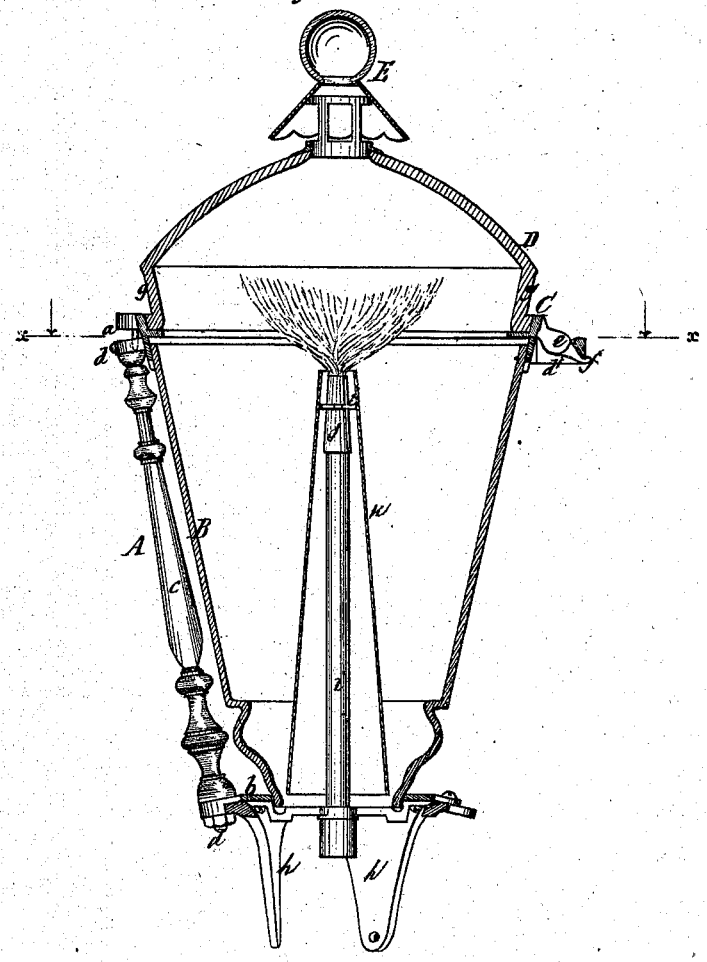
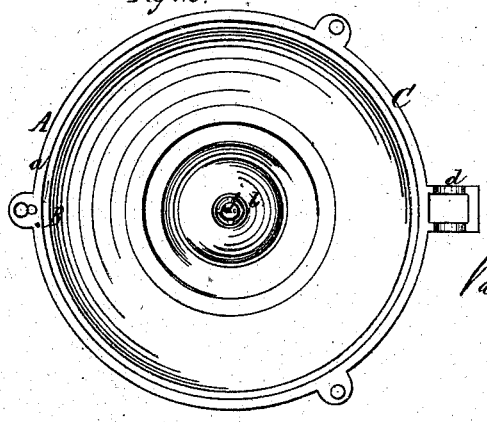


Fig: 2.



Witnesses.

C. Wahlers

E. F. Kastenhuber

Inventor.

G. Cuppers

per

Van Santwood & Hopkins

Attys

United States Patent Office.

GUSTAVUS CUPPERS, OF NEW YORK, N. Y.

Letters Patent No. 107,884, dated October 4, 1870; antedated September 21, 1870.

IMPROVEMENT IN STREET-LAMPS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GUSTAVUS CUPPERS, of the city, county, and State of New York, have invented a new and useful Improvement in Lamps; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a vertical central section of this invention.

Figure 2 is a horizontal section of the same.

Similar letters indicate corresponding parts.

This invention relates to street-lamps, composed of a metal frame formed to receive an inverted cone, which is made of glass or other transparent material, in one piece, and without a seam, in such a manner that the construction of the lamp is materially simplified.

The top rim or flange of the metal frame is provided with a concave socket to receive a corresponding lug projecting from the frame of the dome, in such a manner that, by the socket and lug, a joint is formed, which allows of opening and closing said dome, and, at the same time, the dome can be lifted clear off whenever it may be desired.

The gas-burner is surrounded by a conical air-tube, which is open at top and bottom, and supported by studs radiating from the burner, or from the pipe to which said burner is attached, in such a manner that the current of air created up through the conical air-tube, whereby the brilliancy of the flame is materially increased.

In the drawing—

The letter A represents the frame of my lamp, which is composed of a circular top ring or flange, *a*, and a base-ring, *b*, the two rings being connected by braces or bars, *c*, which are secured to the same by screws *d*, or in any other desirable manner.

The rings *a* and *b* form the guides to retain and steady the inverted cone B, which is made of one piece of glass or other transparent material, and placed loosely in between the rings, so that all the labor usually required for cutting, fitting, and securing the panes of glass is saved, and a lamp is obtained which is very simple in its construction, and which offers the least possible obstruction to the rays of light emitted by the flame in its interior.

The top ring *a* is provided with a semi-cylindrical socket, *d'*, to receive a cylindrical lug, *e*, which projects from the ring or frame C, supporting the dome D.

An arm, *f*, extending from the lug *e*, passes down through an opening in the socket *d'*, and assists in holding the frame C in position.

The dome D is secured in the frame C by cement, or by other suitable means, and, by the lug *e* and socket *d'*, a hinge-joint is formed, so that the dome can be readily turned up for the purpose of lighting the gas, or it can be taken off entirely whenever it may be desirable.

Said dome is made of semi-transparent material, such as milk or ground glass, and it is provided with a flat rim, *g*, on which the name of a street or of the proprietor of a house or business place can be written, and the top of the dome is made to form the section of a sphere, the center of which coincides with the flame, so that it reflects the rays of light emitted by said flame with the best possible effect. The reflecting surface of the dome D may be enameled sheet metal.

A cap, E, surmounts the dome, and this cap is constructed of glass or any other material, and it is applied in such a manner that it does not obstruct the escape of the products of combustion, while it prevents the rain from passing down to the flame, or into the interior of the lamp.

The base ring *b* is provided with a bracket, *h*, by means of which the lamp can be conveniently secured to a post.

Through the opening of the base ring extends the gas-pipe *i*, to which is secured the burner *j*, and over this burner is placed a conical air-tube, *k*, which rests upon studs *l*, radiating from the burner or from the pipe supporting the same. By this conical tube a current of air is conducted to the flame, and thereby the brilliancy of the light is materially increased.

For oil, the form or shape of the glass cone is changed, so as to make room for the oil-cistern, the glass cone being supported in the same manner as above described.

If desired, the lamp can be suspended from chains, or put up in any desired manner.

What I claim as new, and desire to secure by Letters Patent, is—

1. The reflecting-dome D, provided with the flat transparent portion *g*, substantially as and for the purpose described.

2. The cone B and its frame A, consisting of flange *a*, socket *d'*, base ring *b*, and bars *c*, in combination with the dome D, with frame C, lugs *e*, and arm *f*, substantially as and for the purpose described.

3. The top ring *a*, formed with a semi-cylindrical socket, *d'*, and an opening, in combination with the cylindrical lug *e*, and the arm *f* extended therefrom on the frame C, substantially as and for the purpose described.

4. The conical air-tube *k*, supported by studs radiating from the burner or the pipe to which said burner is attached, substantially as herein set forth.

Witnesses: GUSTAVUS CUPPERS.

W. HAUFF,

E. F. KASTENHUBER.