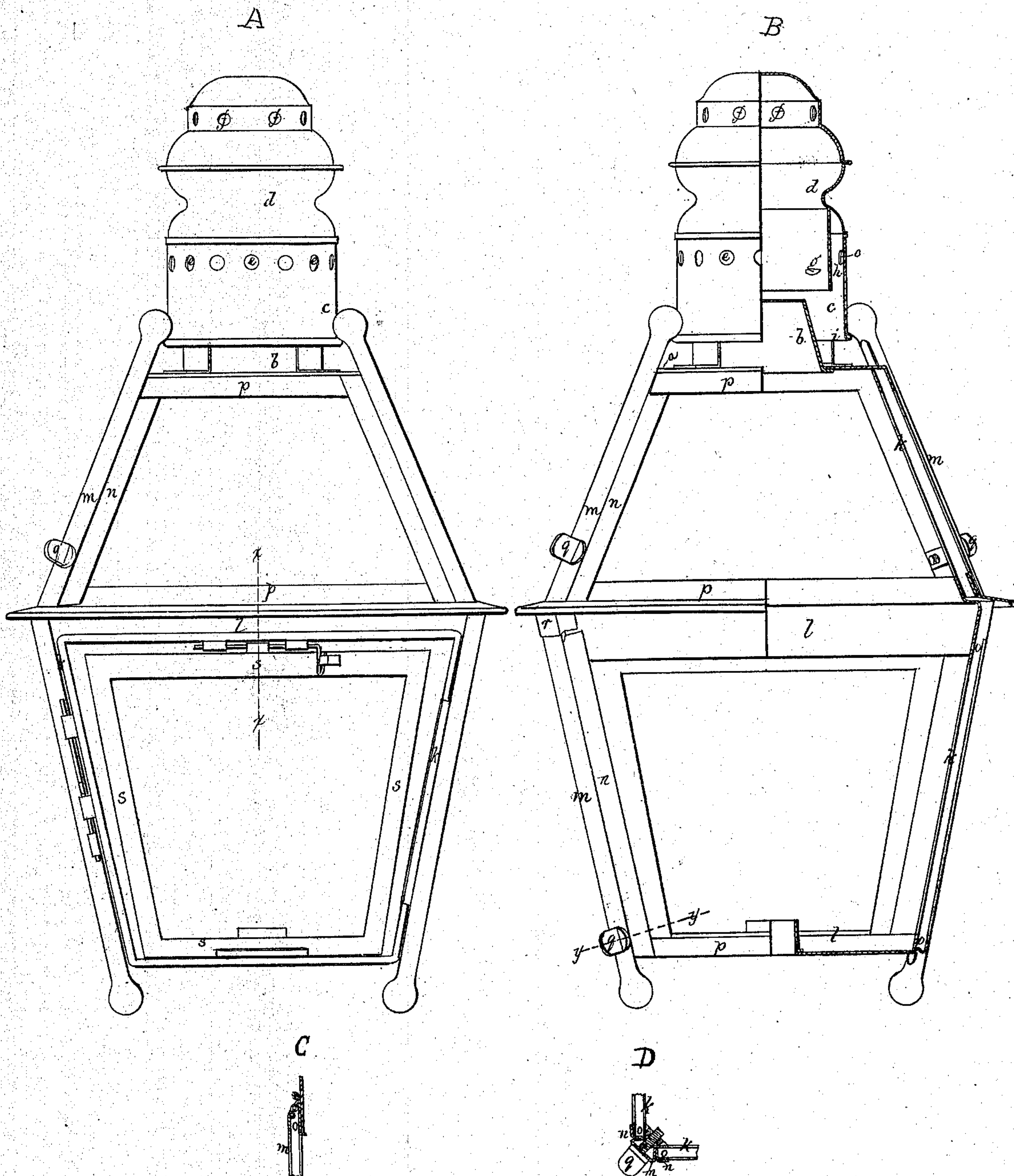


A. TUFTS.  
Street Lamp.

No. 112,396.

Patented Mar. 7, 1871.



Augustus Tufts  
by his attys  
Witnesses  
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# United States Patent Office.

AUGUSTUS TUFTS, OF MALDEN, MASSACHUSETTS.

Letters Patent No. 112,396, dated March 7, 1871.

## IMPROVEMENT IN STREET-LANTERNS.

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, AUGUSTUS TUFTS, of Malden, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Street-Lanterns; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

The invention relates particularly to the construction of street-lanterns with reference to such provision for ingress of air to support combustion and egress of the volatile products of combustion as shall prevent currents of air or rain being thrown into the lantern in such manner as to extinguish the flame of the lamp.

The invention consists in the peculiar construction of the lantern-top or cap for this purpose.

The drawing represents a lantern and cap embodying the invention.

A shows the lantern in front elevation.

B shows the lantern partly in side elevation and partly in sectional elevation.

C is a cross-section on the line *xx*.

D is a cross-section on the line *yy*.

*a* denotes the flanged base, by which the cap is applied to the top of the lantern-body.

Upon this base is a short frusto-conical chimney, *b*, opening at the top into the cap cylinder or chamber *c*, which chamber is surmounted by a dome, *d*.

The bottom of the cone or chimney *b* opens into the body of the lantern, and the smoke and other volatile products of combustion rising from the lamp pass through the cone and escape in the direction of the arrows, through air-holes or passages *e* opening through the chamber or cylinder *c*, small holes *f* being also made in the dome, if necessary, for the escape of smoke, &c.

Within the cylinder *c* is a hollow guard-cylinder or tube, *g*, projecting down from the dome, and so made and arranged as to form a narrow chamber, *h*, between it and the air-passages *e*.

The bottom of the cylinder *g* is less in diameter than the top of the chimney *b*, and the main cylinder *c* is open at bottom, leaving a space, *i*, between it and the cone or chimney, as seen in the drawing.

The air-escapes or passages *e* are all flanked or covered by the outer surface of the guard-cylinder,

and by inspection of the drawing it will readily be seen that gusts of rain or wind, though blown violently into the chamber *c* through the air-holes *e*, cannot be blown down into the cone, but will strike the cylinder *g*, and dropping or being forced therefrom, will strike the outer surface of the cone and be thrown from the lantern through the space *i*, while the disposition of the parts is such that rise of the smoke, heated air, &c., and escape thereof through the holes, are in effect unobstructed.

*k* denotes the vertical bars of the lantern-frame and door, and

*l*, the horizontal bars of the same, each set of four bars *k l* forming the frame for one of the glass panes. Instead of making each frame with a lip or rebate for receiving the glass and putting the glass into the frame, I provide each frame with a removable retaining strip *m*, having lateral flanges *n*, between each of which and the adjacent bar of the frame a groove, *o*, is formed for receiving the edge of the glass, a stationary retaining strip, *p*, being at the bottom of each part of the frame, and, if desirable, at the top also, and also at such vertical corners as are not provided with the removable strips.

Each removable strip is fastened in position by a thumb-screw, *q*, or other suitable fastening device, and by taking out the screw and withdrawing the opposite end of the strip from a socket, *r*, or other confining device, the strip may be removed and the old glass may be taken out or a new glass slipped in.

It will thus be seen that no putty or other cement is necessary, and that glass may be inserted or removed without taking a lantern from its post or holder, and by an unskilled person as well as by a glazier.

Instead of making single removable strips there may be a removable frame, *s*, as seen at A, hinged or bolted, or hinged and bolted to the main frame, but I prefer the use of single removable retaining strips.

I claim—

In combination with the cone-chimney *b*, and with the cylinder *c* and its air-openings or passages *e*, the shield or guard-cylinder *g*, when the parts are all constructed and relatively arranged substantially as shown and described.

AUGUSTUS TUFTS.

Witnesses:

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