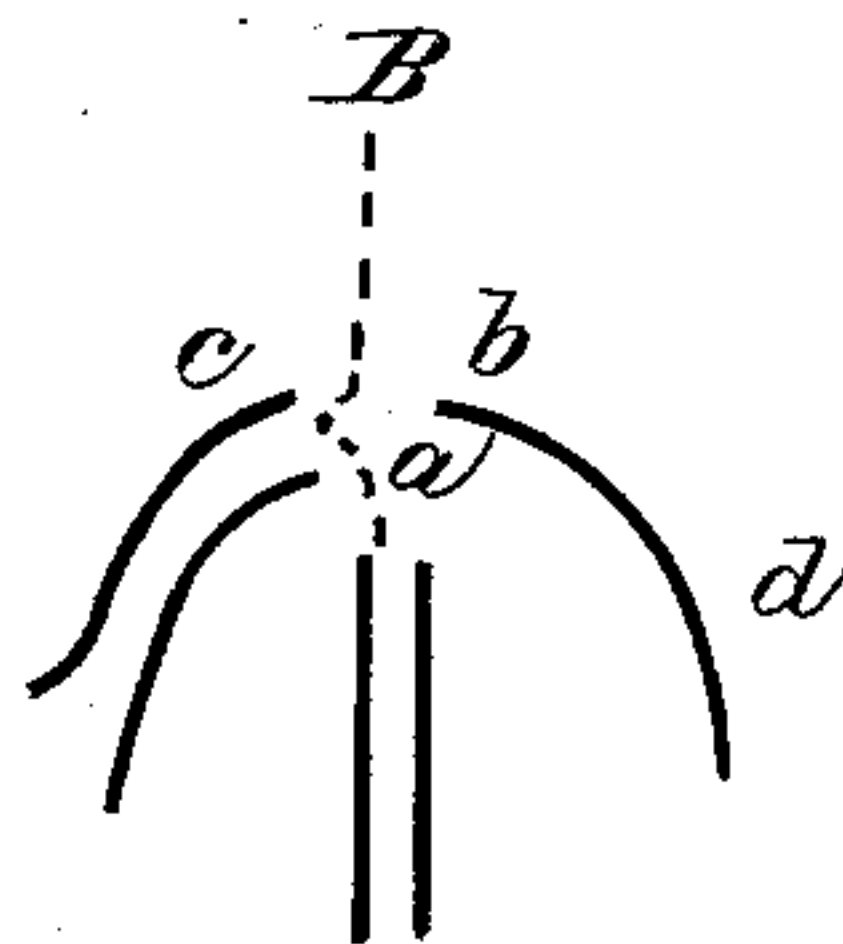
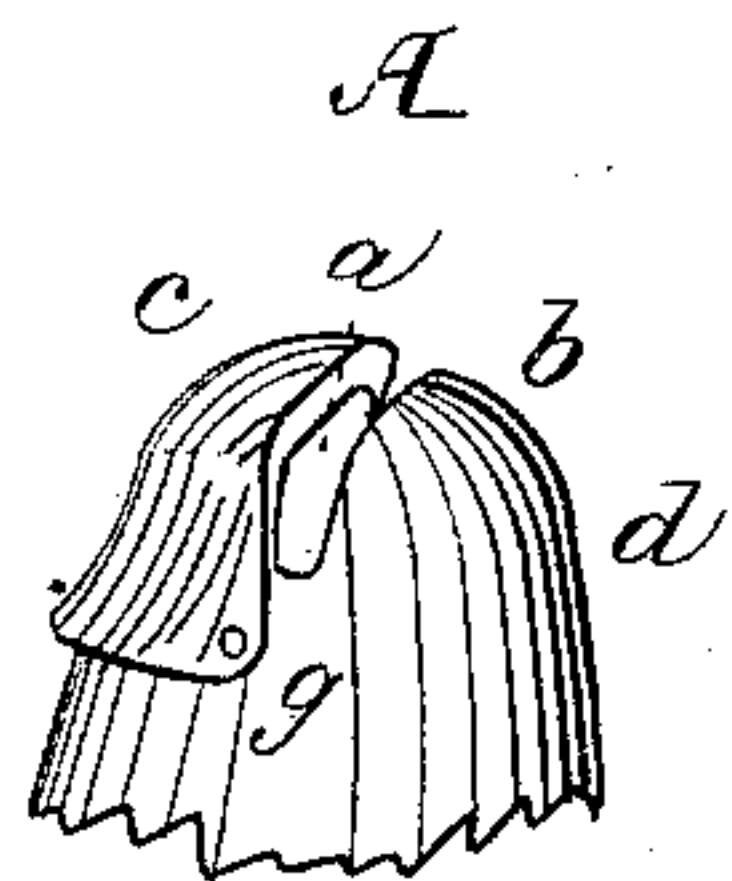


E. K. HAYNES.

Lamp Burner.

No. 86,301.

Patented Jan. 26, 1869.



Witness
Wm Cogswell
James H. Ward.

E K Haynes



E. K. HAYNES, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 86,301, dated January 26, 1869.

IMPROVEMENT IN LAMP-BURNERS.

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, E. K. HAYNES, of Boston, in the county of Suffolk, State of Massachusetts, have invented a new and improved Lamp-Cone, or Deflector; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in forming one side of the burning-aperture lower than the other side; also, in the manner of keeping the flame upright.

By this means, I am able to use a narrower burning-aperture without causing the flame to flicker or produce gas, and in burners without a chimney it is of the utmost importance to produce a very thin flame, which this does by forcing the air against the flame at different heights, causing it to bend one way, then the other way, letting more air through the burner than it would if the edges were of the same height, and by bending back and forth, causes more air to unite with the flame, consequently producing a thinner and purer white light.

To prevent the flame from leaning, I place on the side of the lowest half of the cone, another section of a cone of a little larger diameter, and extending above the high side of the cone, and a little back from the edge of the lower side of the burning-aperture, sufficiently far to straighten the flame, and not lean it the other way.

A cone formed in this manner prevents the forming of gas when the flame is turned down low, for the reason that the lowest side of the cone is much nearer the wick, causing the draught to take the gas out from the top of the wick-tube and consume it.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct the lower part of my cone or deflector in any form desired. Usually, the horizontal section, up as far as *b*, is a circle.

Reference being had to the accompanying drawings—

A is a perspective view.

B, a section, at right angles to the burning-aperture. The side *a* is the usual form.

The side *b* is the usual form, except that it is drawn up about one-eighth of an inch higher than *a* is.

C is a segment of a cone, of the usual form, except that it may be curved out at the lower edge, of sufficient size and height above *b* to turn air enough against the flame to straighten it up. It is fastened to the main cone in any manner, either riveted or brazed, at *g*. The flame will then take the course of the dotted lines, which keeps the flame longer exposed to the air, consequently thinner and whiter.

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

The forming of one side of the burning-aperture of a lamp-cone higher than the other side.

Also, the segmental cap C, in combination with the cone, when used for the purpose of straightening up the flame, substantially as herein described.

E. K. HAYNES.

Witnesses:

W. COGSWELL,
JAMES F. WARD.