

(No Model.)

S. C. WILCOX.

LAMP WICK.

No. 346,569.

Patented Aug. 3, 1886.

Fig. 1.

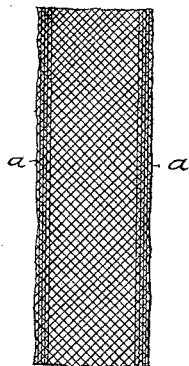


Fig. 2.

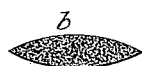
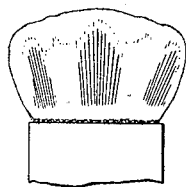


Fig. 3.



Witnesses:

Henry A. Clark.

John C. Schroeder.

Inventor :

Stephen C. Wilcox

by Geo. W. Lutz

Attorney

# UNITED STATES PATENT OFFICE.

STEPHEN C. WILCOX, OF DUBUQUE, IOWA, ASSIGNOR OF ONE-THIRD TO  
WALKER & RHEMBERG, OF SAME PLACE.

## LAMP-WICK.

SPECIFICATION forming part of Letters Patent No. 346,569, dated August 3, 1886.

Application filed November 6, 1885. Serial No. 182,002. (No model.)

*To all whom it may concern:*

Be it known that I, STEPHEN C. WILCOX, of Dubuque, in the county of Dubuque and State of Iowa, have invented a new and useful Improvement in Lamp-Wicks; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the use of the ordinary flat lamp-wick the circulation of the oil is uniform throughout, and the flame produced is invariably pointed, and higher at the corners than at the center, making the lamp smoke, and frequently causing the chimney to crack, besides affecting the illumination. The cause of this is attributed to improper circulation of the oil and to the excess of burning-surface and capillary attraction at the edges of the wick, where both the sides and edges join and present more surface for combustion than exists at the center of the wick. To avoid this it is necessary to impede or restrict the circulation of the oil at the edges and to increase the circulation at the center of the wick; or, in other words, the capillary attraction should be greater at the center than at the edges of the wick. This may be accomplished to a certain extent by weaving the ordinary flat wick closer at the edges than at the center; but to obtain the best results the wick should in cross-section be thickest at the center and taper to the edges, which should be sharp, and therein lies the novelty of my invention, all as more fully hereinafter described and claimed.

In the accompanying drawings, which fully illustrate my invention, Figure 1 is a view of a portion of the ordinary flat wick with its edges woven closer than at the center. Fig. 2 illustrates in cross-section several different forms of the wick, but all of the same general construction; and Fig. 3 shows the shape of the flame produced by my improvement.

By weaving the edges of a flat wick closer than at the center, as shown at *a a* in Fig. 1, the oil cannot circulate so freely as at the center, and hence the capillary attraction is greater at this point, and the flame produced will be shorter at the corners than at the center, and will somewhat resemble the shape of the flame represented in Fig. 3.

The various forms of the wick embraced under Fig. 2 are shown as being wider or thicker at the center and tapering from this point to the edges, which terminate like unto the apex of an angle. Of these various forms, *b* denotes a wick the two sides of which form a double convex, and which is the shape preferred by me as the one to obtain the best results. The wick *c* is similar in construction to *b*, except that the sides, instead of being convex throughout, are partially concave. The sides of the wick *d* are concave from the center to the edges, and the sides of the wick *e* are straight and taper regularly inward from the center to the edges. In each of these constructions the result is the same—that is, the oil is restricted from circulating as freely up the edges as up through the center of the wick, and the flame produced is consequently thick and high at the center and thin and short at the corners.

A wick made convex throughout on both sides, as shown at *b*, if cut square with the top of the burner-cone, will produce a flame of oval shape throughout, and, in fact, a wick of the other shapes shown, if properly trimmed, will produce a flame of oval outline, like as represented in Fig. 3. It will be apparent that these changes in the shape of the wick will require corresponding changes in the construction of the wick-tube, and accordingly I have embraced, as the subject-matter of an application filed of even date herewith, and bearing the Serial No. 182,003, a wick-tube to be used with wicks of the herein-described form.

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

1. A solid lamp-wick made in cross-section thickest at the center and tapering to the edges, which are sharp, substantially as and for the purposes set forth.

2. A solid lamp-wick of double-convex shape in cross-section, and with sharp edges, substantially as described, shown, and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

STEPHEN C. WILCOX.

Witnesses:

JOHN L. BUETTEL,  
MONROE M. CADY.