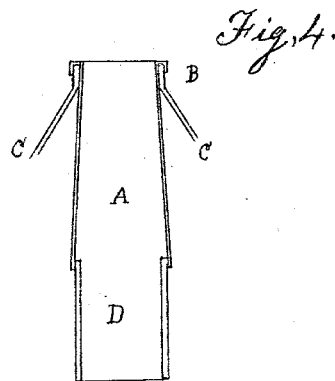
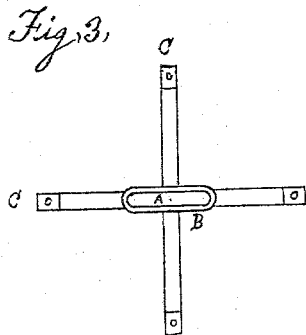
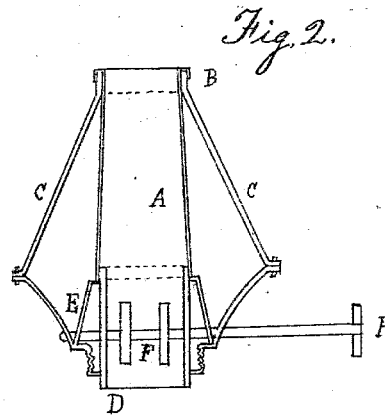
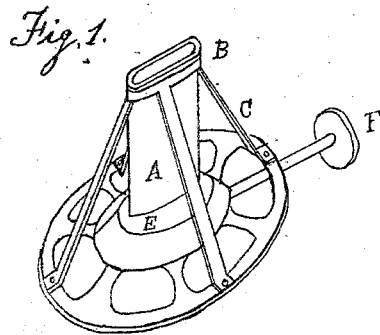


E. K. HAYNES.

Improvement in Lamp-Wick Tubes.

Patented June 6, 1871.

No. 115,607.



Witnesses:
B. C. Roulton
Thomas Ellis

Inventor:
Edgar K. Haynes

UNITED STATES PATENT OFFICE.

EDGAR K. HAYNES, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN LAMP-WICK TUBES.

Specification forming part of Letters Patent No. 115,607, dated June 6, 1871.

To all whom it may concern:

Be it known that I, EDGAR K. HAYNES, of Boston, in the county of Suffolk, State of Massachusetts, have invented a new and useful Lamp-Wick Tube; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, in which—

Figure 1 is a perspective view embodying my invention. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a top view of the wick-tube and braces. Fig. 4 is a detached vertical section of the wick-tube.

The nature and object of my invention are to prevent the heat from passing down the wick-tube.

In all coal-oil burners that are used without a chimney there is an offensive odor produced, which injures very much the sale and use of this class of burners. I have found by experiment that the greater part of this odor is caused by the heat passing down the wick-tube in sufficient quantity to produce gas or vapor from the oil at the lower end of the wick-tube, which passes out of the tube through the aperture in which the toothed wheel works to raise and lower the wick. It is also formed from any oil that may be on the base of the burner.

To obviate this difficulty of the heat passing down the wick-tube I construct my tube in sections, one of which is made of metal sufficiently thin to cool by the action of the air outside and the oil inside, thereby preventing a sufficient quantity of heat from passing down the tube to form gas or vapor.

A is a section of very thin metal, not as thick as common writing-paper. It is soldered,

locked, or otherwise fastened to the top of the lower section D; or it may be a continuation of D drawn out thin to save making the joint. The section D is of the usual form and thickness. To give strength enough for the toothed wheel F to work against it should be as short as possible, leaving only a sufficient space above the cap E to make the proper connection. I have now a wick-tube; but the section A is not sufficiently strong for practical use. To strengthen and support it I construct a ring, B, in the form of the top of the tube, slip it over the outside, then turn or lock the top end of the tube A over the ring. This protects and strengthens the top. To brace and support it I connect a sufficient number of arms or braces, C C, to the ring B, and fasten the other end to the base of the burner, to the cone or deflector, or any permanent place, according to the construction of the burner; or the thin section A may be corrugated enough to give it sufficient strength without the use of the ring B and braces C C.

With a tube constructed in this manner, and a burner with a base large in diameter, to connect the deflector to, to prevent too much heat from that direction getting to the base of the wick-tube, we have a burner almost entirely free from smell.

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

The wick-tube A D, when the upper part A is made of thin metal, substantially as and for the purpose herein described.

EDGAR K. HAYNES.

Witnesses:

B. C. MOULTON,
THOMAS ELLIS.