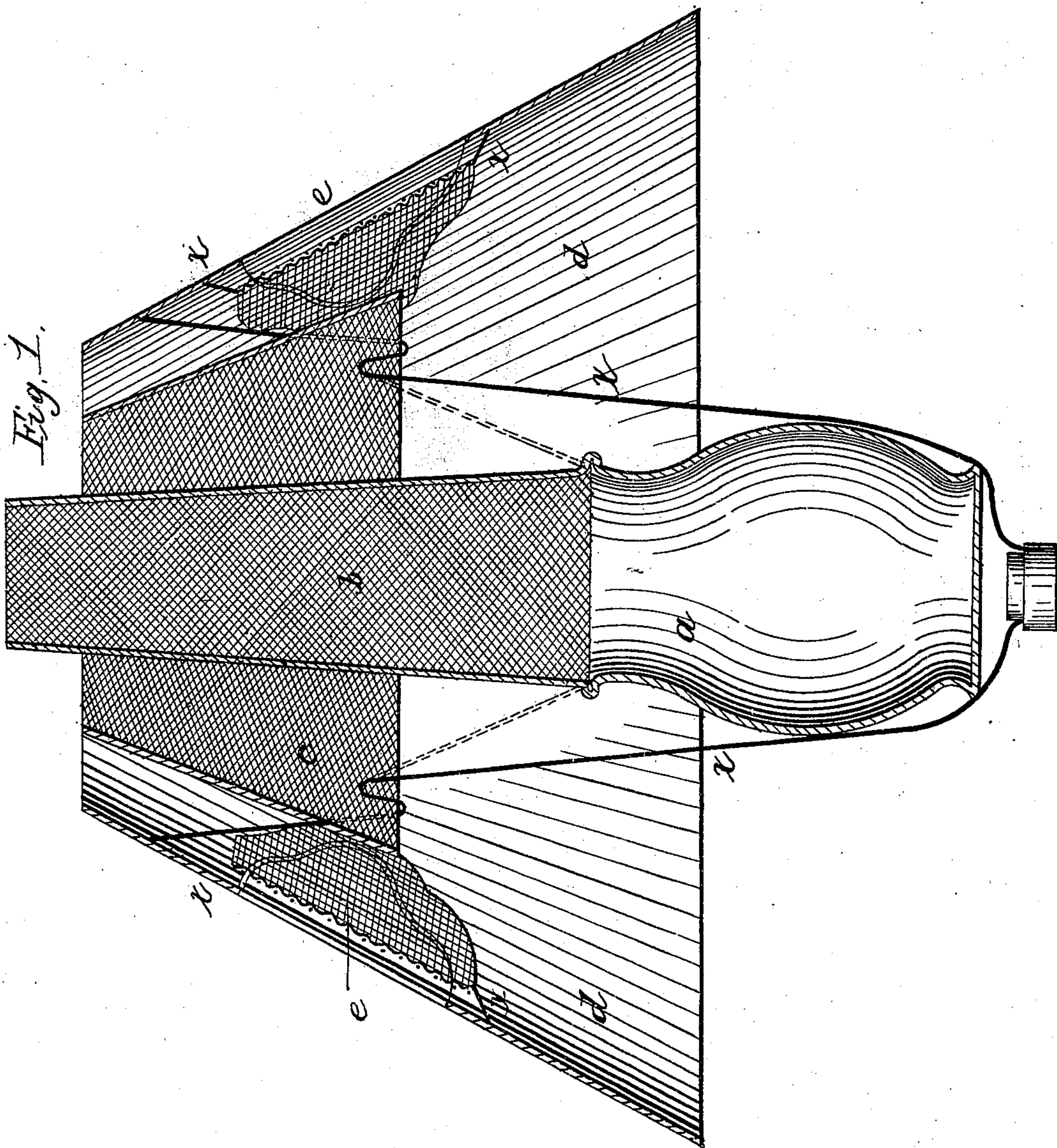


WELLMAN & GREENOUGH.

Lamp Shade.

No. 40,785.

Patented Dec. 1, 1863.



Witnesses:

J H Phelps
a Jugston

Inventors:

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UNITED STATES PATENT OFFICE.

MARIAN J. WELLMAN AND J. J. GREENOUGH, OF NEW YORK, N. Y.

IMPROVEMENTS IN CHIMNEYS AND SHADES FOR LAMPS AND OTHER LIGHTS.

Specification forming part of Letters Patent No. 40,785, dated December 1, 1863.

To all whom it may concern:

Be it known that we, M. J. WELLMAN and J. J. GREENOUGH, of the city, county, and State of New York, have invented certain new and useful Improvements in Chimneys and Shades for Lamps and other Lights; and we do hereby declare and ascertain our said invention, referring to the accompanying drawing in illustration thereof, in which—

Figure 1 is a vertical section showing the lamp-shade and chimney.

We are aware that lamp shades have been made of perforated metal to be used without other material, as in the shade of Shaw, but we do not make the shade thereof. It is also old and well known to employ a short glass chimney, and extend the length thereof by adding to the top metal tubes for the purpose of increasing the draft or carrying the products of combustion out of the chamber or compartment in which the light is burning, as in railway-carriages and other places. These devices are public and form no part of our invention.

Our device is for the purpose of keeping the metal cool and of protecting the shade when used from injury by heat from the light, especially when made of combustible material—such as paper, &c.—which is so soon destroyed or disfigured by the intense heat from the light. To effect this, instead of making the metal extension of the chimney of solid metal, as was heretofore done, we make it of wire-gauze or finely-perforated metal, so as to admit the free passage of air through it. This we find keeps the metal down to a temperature so low as to prevent any injury to the shade when used. We also in some cases place an enlarged cone or shield around between the light of whatever kind and the shade, by means of which the shade is perfectly protected, said shield being made of wire-gauze or perforated metal, as aforesaid, and we propose, as a modification of this, to employ either with or without the said shield a wire-gauze or perforated-metal screen near the combustible portions of a lamp-shade, on the inside, between the said combustible portions and the light, leaving a small air-space

between the perforated metal or wire-gauze and the combustible parts of the shade, whereby they are defended from the injurious heat from the light and are at the same time properly illuminated. By this arrangement we succeed in using a metal extension to the chimney, and so decrease the radiated heat from the light as not to injure the most combustible shade that may be applied, and the lamp-chimney, being kept cool, is easily handled, to remove it or otherwise, even when long over a light.

In the drawing, *a* is a glass chimney of any convenient length. *b* is a metal extension to the same, made of wire-gauze or perforated metal. *c* is the shield of wire-gauze or perforated metal. *d* is the shade of combustible material. *e* is the screen over combustible portions of the shade.

We are well aware that it has been heretofore attempted to protect combustible shades in various ways by the use of an opaque metal shield or mica, but this last soon becomes destroyed or rendered opaque by heat, and in no case forms a perfect and efficient protection, to effect which it is necessary to have a material that will have its temperature kept low by the free circulation of air around and through it, which we perfectly accomplish by the devices aforesaid.

It is obvious that any or all these devices or protections can be used at the same time or otherwise.

The mode of attaching these devices and supporting them are shown at *x*, and can be varied to suit the structure, being attached to the chimney or lamp or gas-fixture below.

Having thus fully set forth our invention, what we claim therein, and desire to secure by Letters Patent, is—

The employment of perforated metal or wire-gauze for the chimneys, shields, or screens aforesaid, by which the temperature is kept low, as and for the purposes set forth.

MARIAN J. WELLMAN.

J. J. GREENOUGH.

Witnesses:

WILLIAM H. HORSTMANN,
JAMES F. RUGGLES.